

GALLIPOLIS LOCKS AND DAM

OHIO RIVER BASIN

MASON COUNTY, WV



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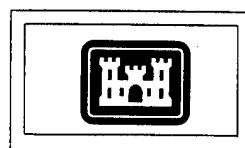
VOLUME 4 PHOTOGRAPHS

CONSTRUCTION OF TWO PARALLEL LOCKS AND CANAL

CONTRACT DACW-69-88-C-0001

23 JANUARY 1993

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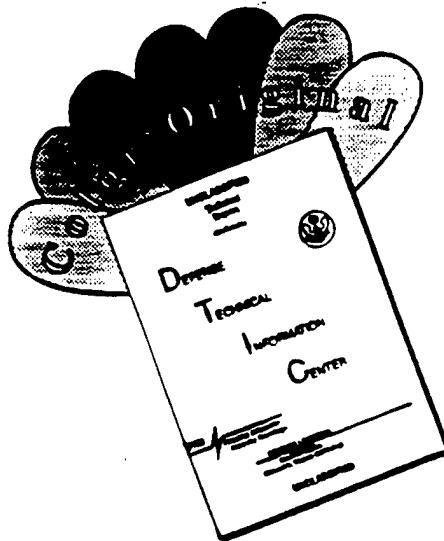


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Gallipolis Locks

Replacement

Ohio River Basin

Mason County West Virginia

Foundation Report

Volume IV

Photographs

Construction of Two Parallel Locks and Canal

Contract No. DACW69-88-C-0001

Huntington District

U.S. Army Corps of Engineers

Huntington West Virginia

March 1992

Gallipolis Lock
Replacement

Ohio River Basin

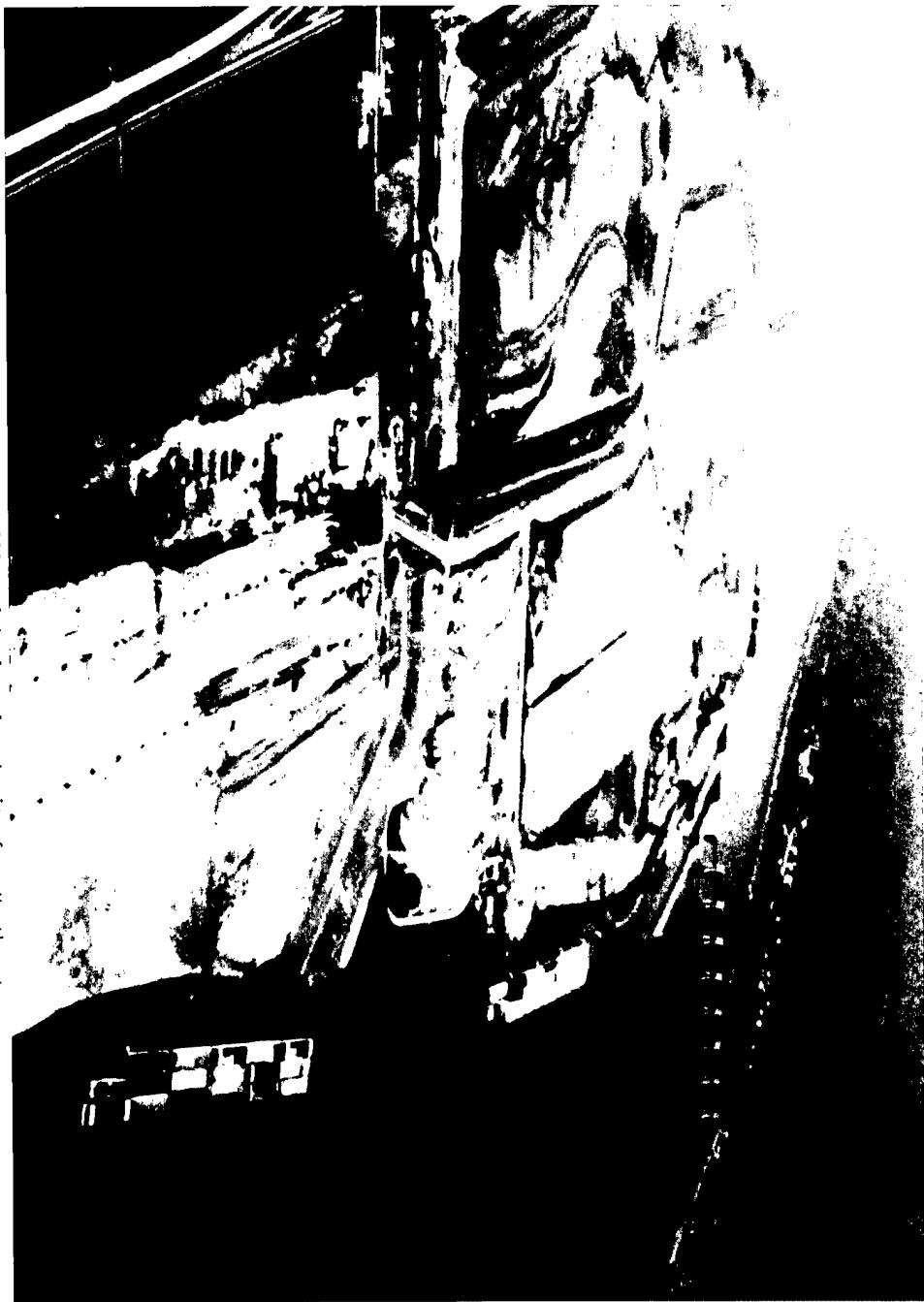
Mason County W.V.

Foundation Report
Volume 4 Photographs

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(1) February 5 1988 Aerial view of work site from Southwest



(2) September 1 1983 Aerial view of work site from Northeast



(3) 6 Inch Drill hole for Predrainage Well

(5) Slurry trench excavation



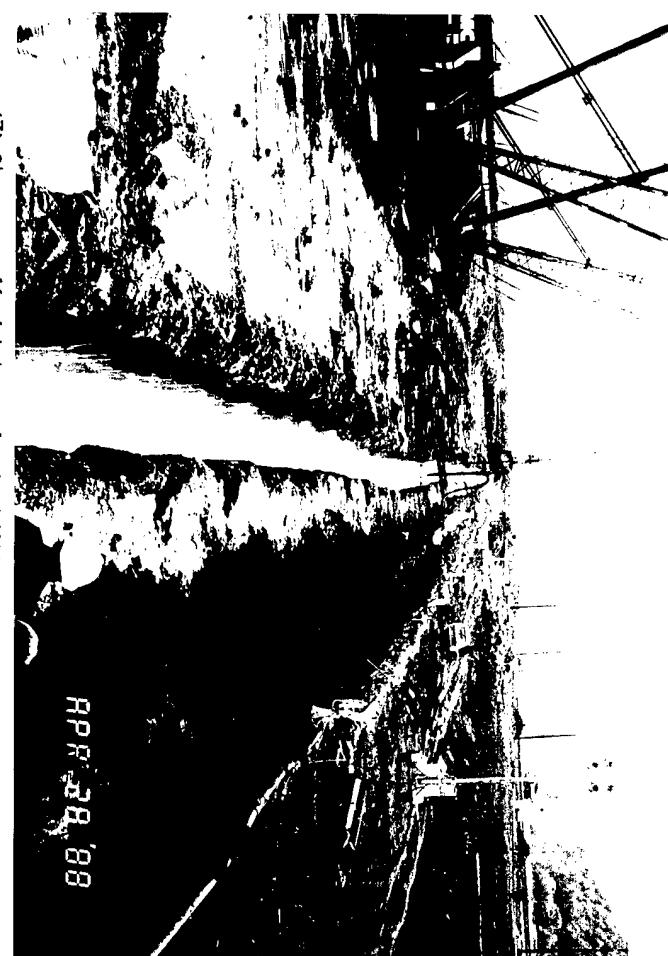
(4) A in place piezometer

(6) Open slurry trench



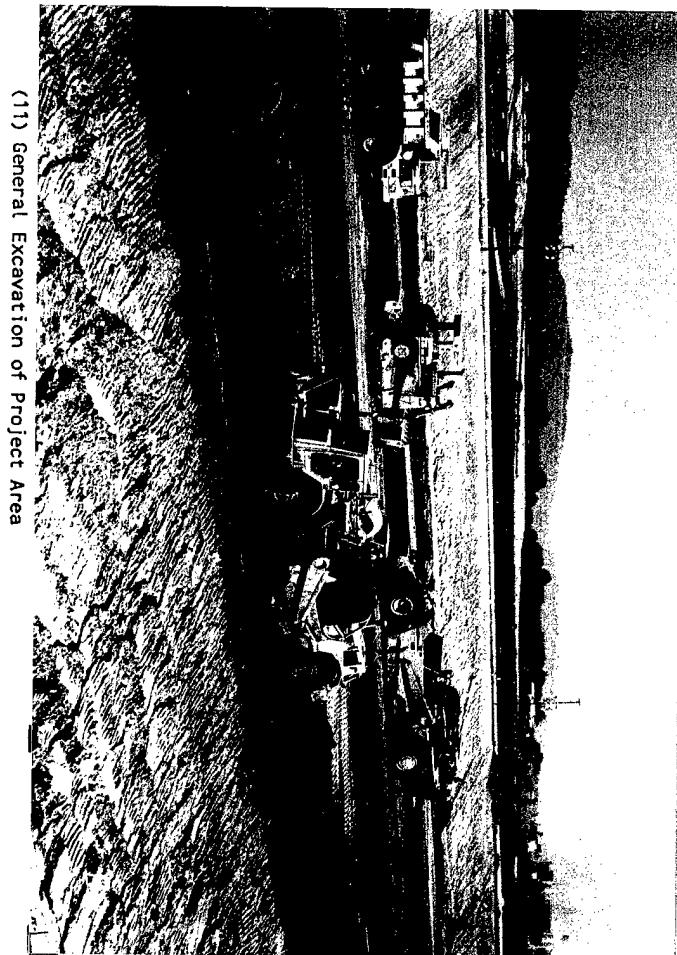
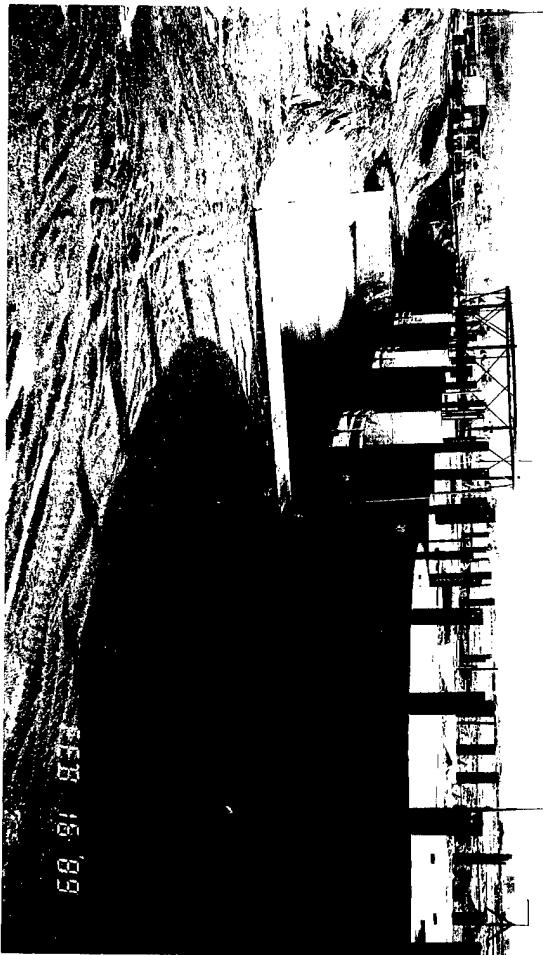


(7) Slurry cutoff with bentonite backfill



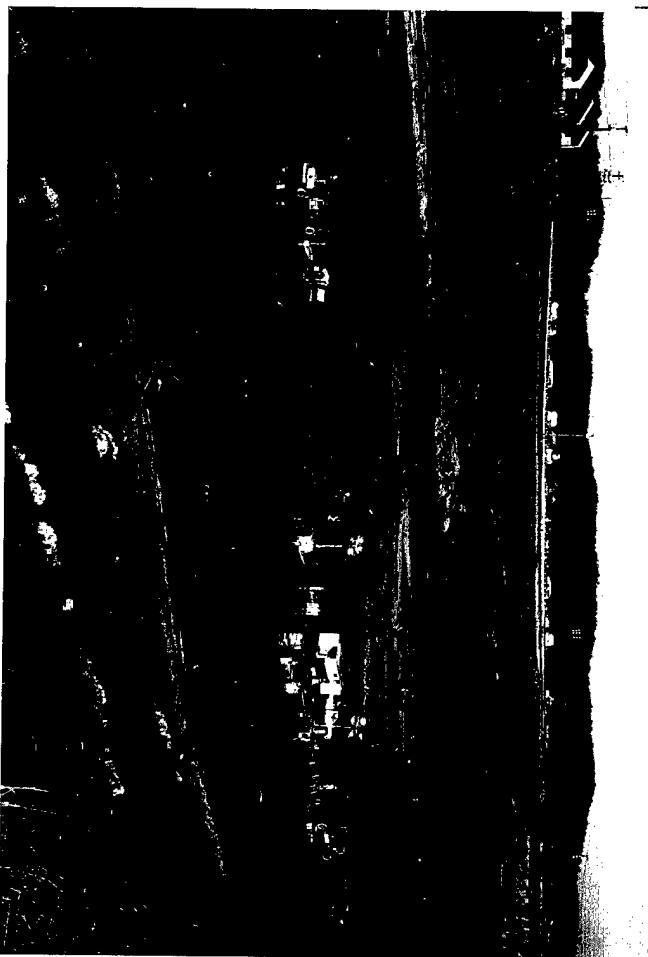
(8) Loading slurry mixer
(10) Mixing cap for slurry trench





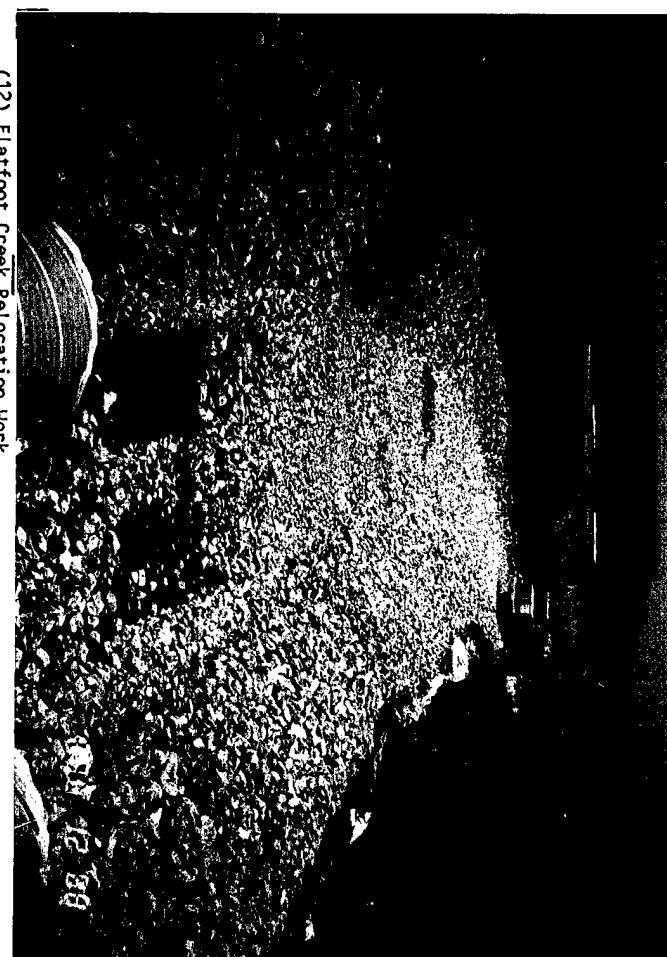
(11) General Excavation of Project Area

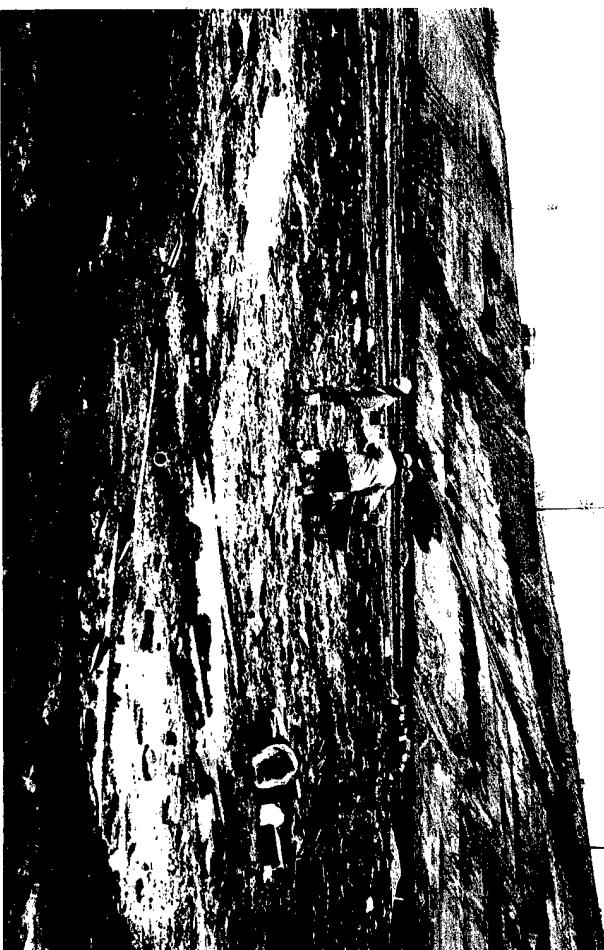
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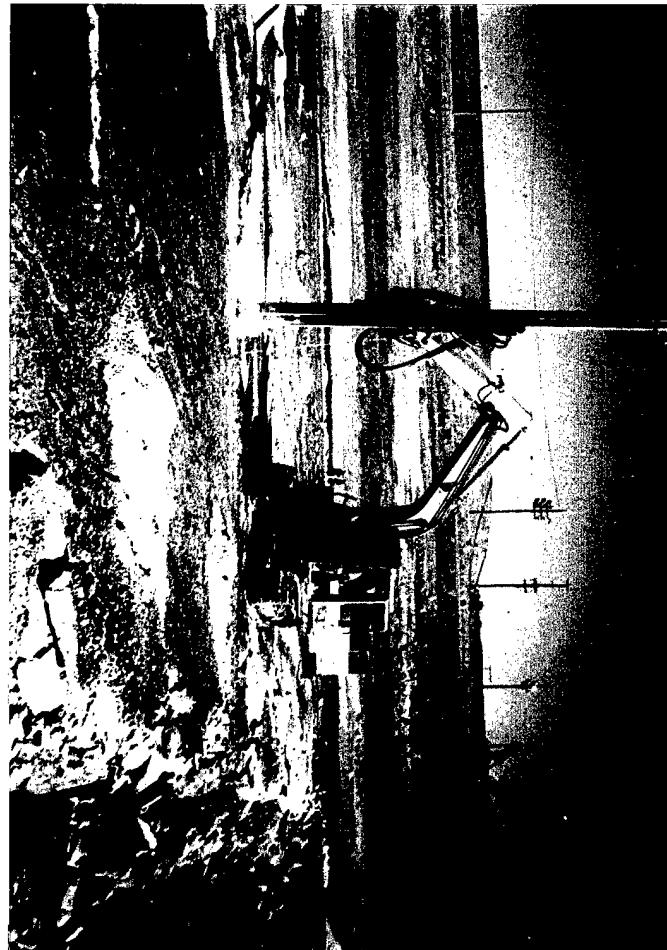
(12) Flatfoot Creek Relocation Work

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(19) Blasting upstream Guide Wall

(21) Rock excavation downstream area



(20) Blast #27 surface heave

(22) Removal of large fragments

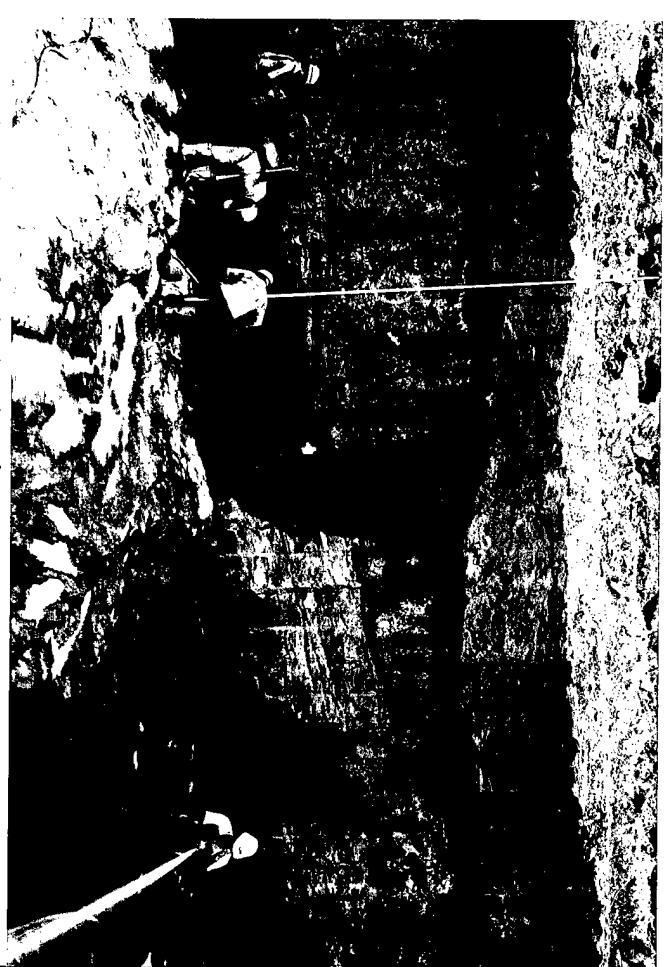




(23) Equipment used in foundation cleanup
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(24) Cleanup using hand tools, air, water
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(27) R-19 Invert downstream facing North
(29) R-21 Invert view Northeast corner



(28) R-20 Diagonal view Northwest corner
(30) R-22 Diagonal view Northeast corner

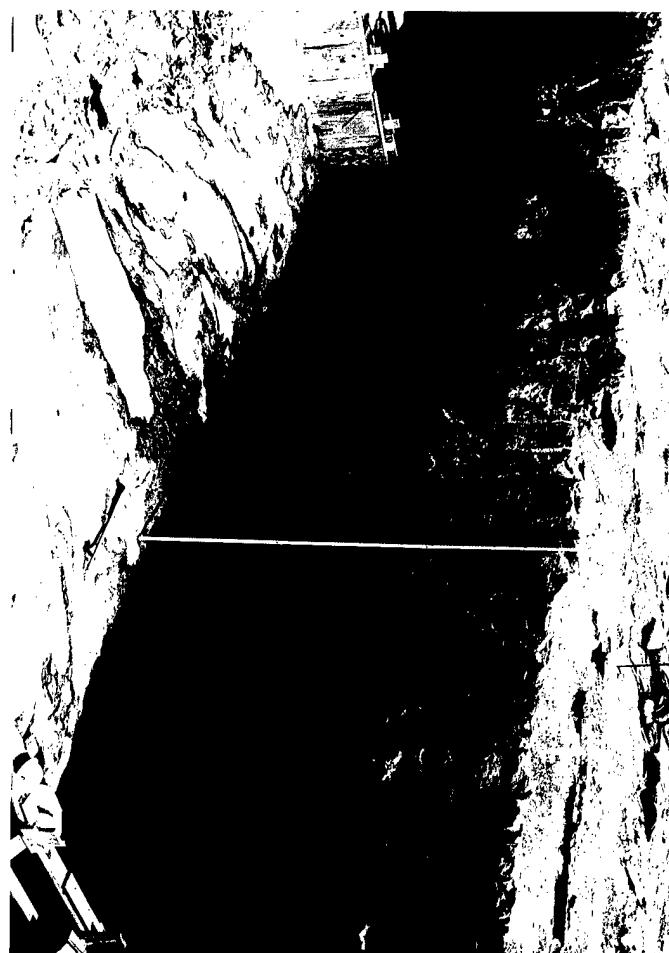




(31) R-23 Diagonal view Northwest corner
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(32) R-24 Land wall view facing Northeast
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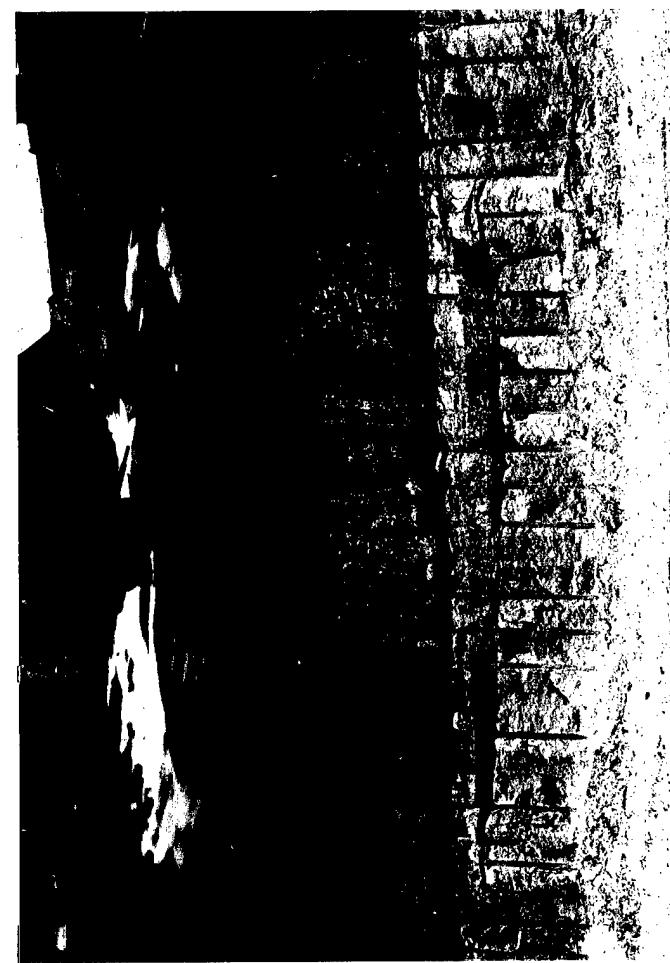


(35) R-27 Invert view Southwest corner
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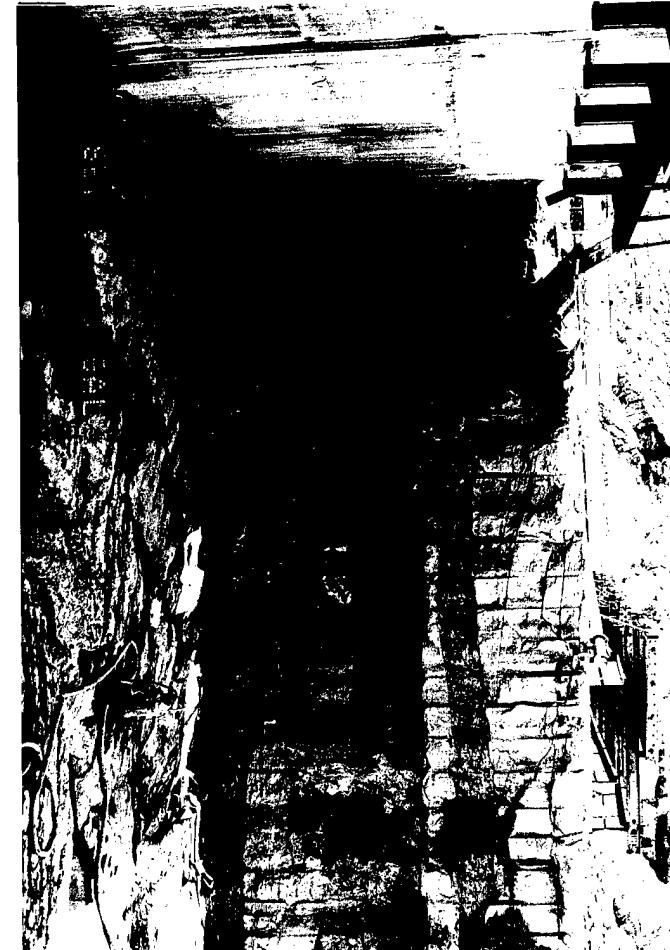
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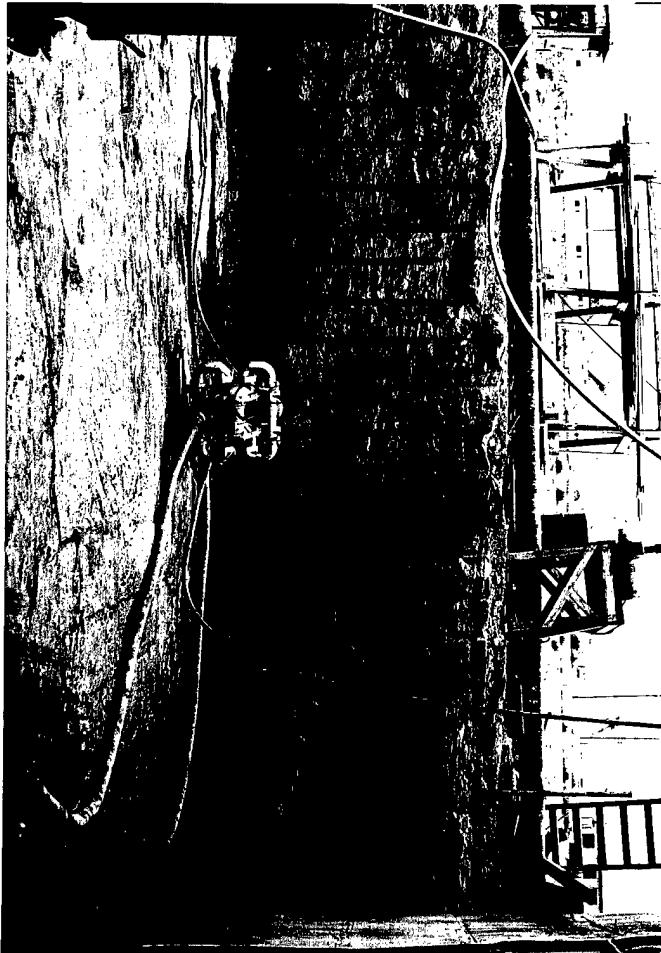
(40) R-32 Land wall Southern half

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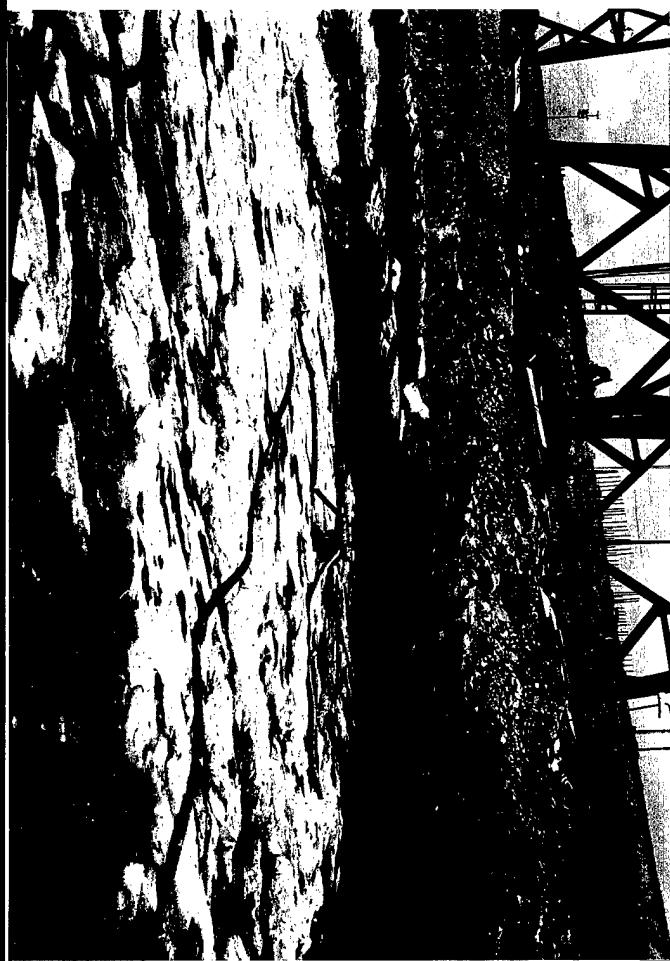


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(55) R-47 Invert view Northwest corner
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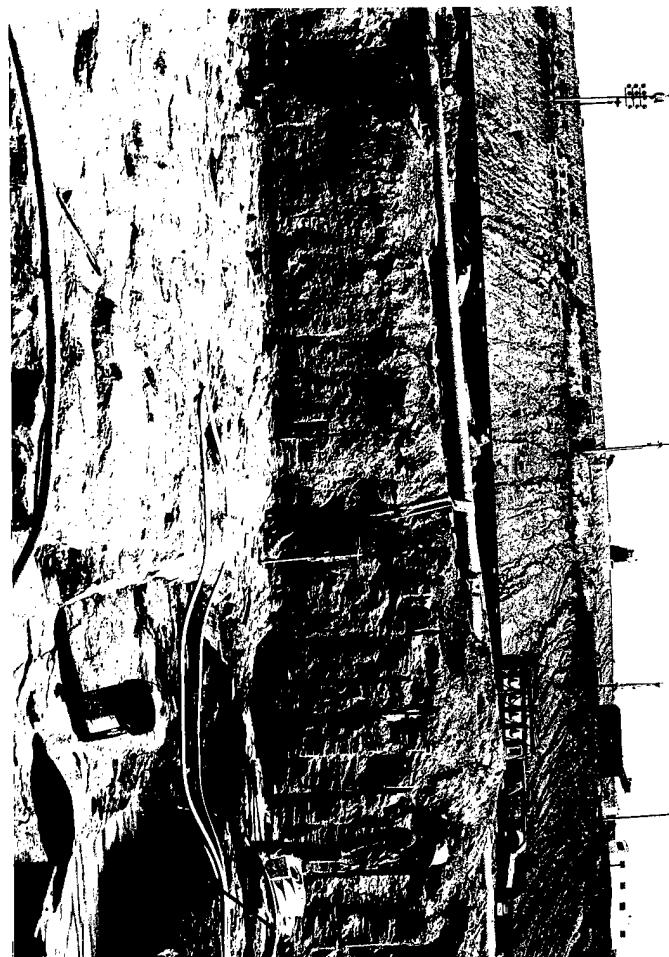


(56) R-48 Land wall Southeast corner
(58) R-50 Land wall Northern half





(59) R-51 Land wall Northern half



(60) R-52 Invert view of Northeast corner
(61) R-53 West wall Southern half





(63) R-55 Invert view Southeast corner

(65) R-57 Invert view of Southeast corner



(64) R-56 Invert view of Southeast corner

(66) R-58 Invert view of Southwest corner

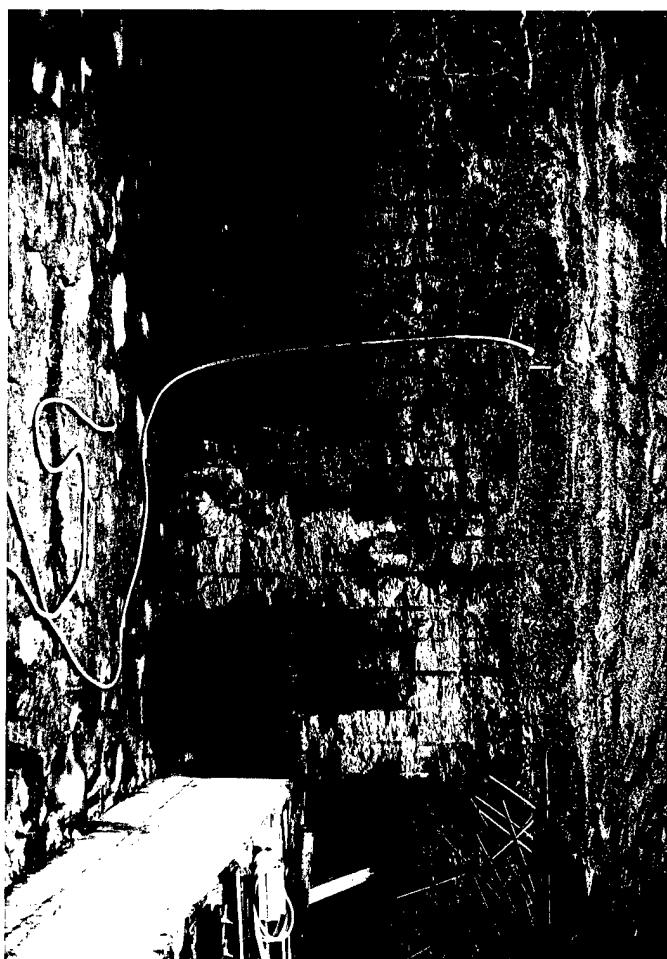




(67) R-59 Invert view Southwest corner
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(68) R-60 West wall Northern half
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(71) R-63 View of Invert Southeast corner



(73) R-65 Invert view of Northwest corner



(72) R-64 Invert view of Northeast corner



(74) R-66 Invert view of Northwest corner

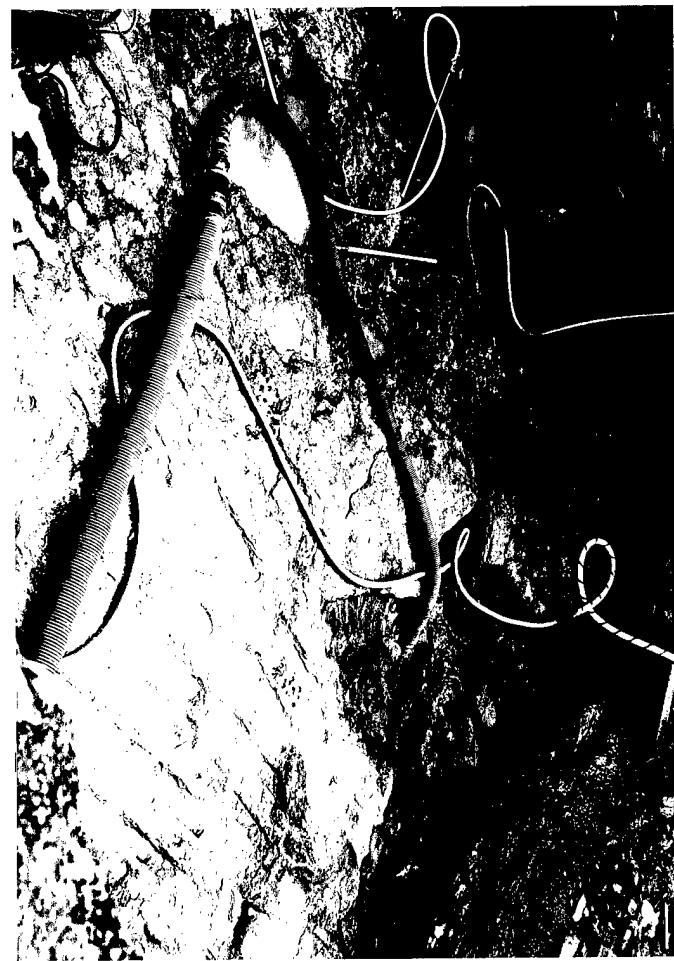


(75) R-67 Invert view of Southeast corner
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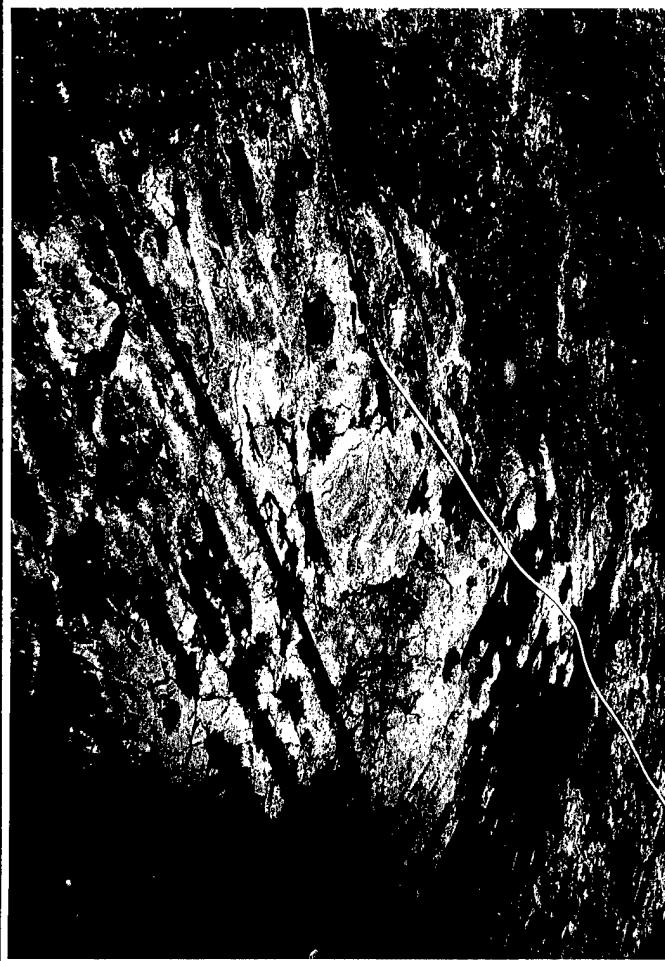
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(79) R-71 Invert view of Northwest corner

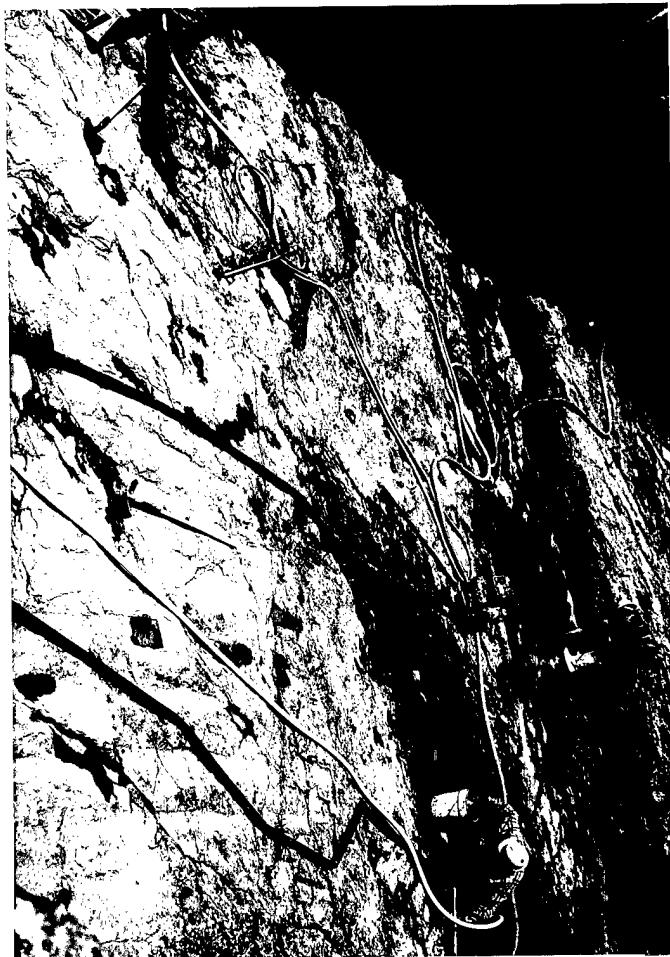
(81) R-73 East wall Northern half



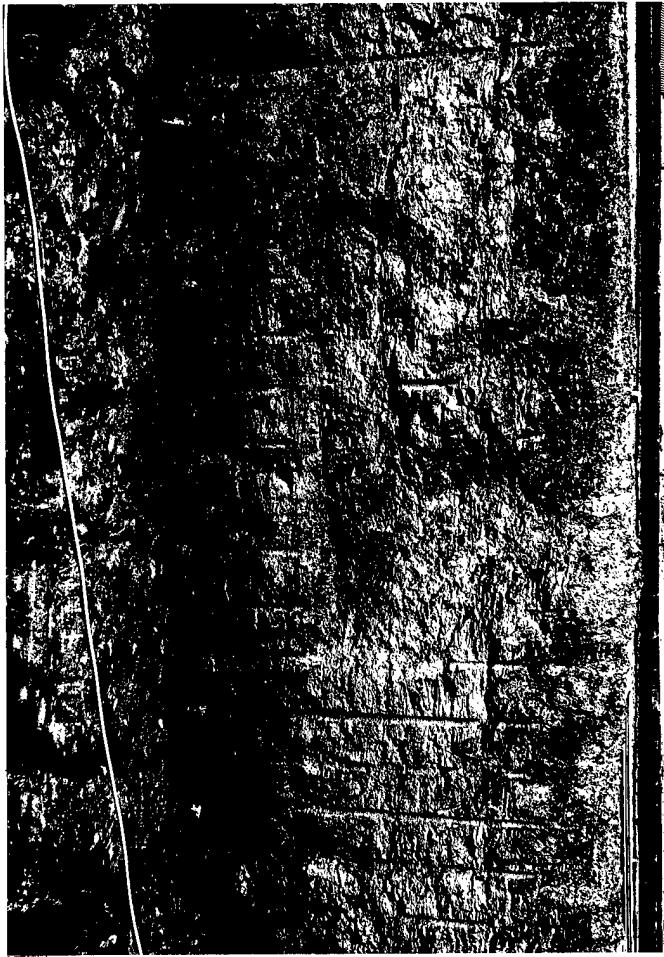
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(86) R-78 View of Southern half of West wall



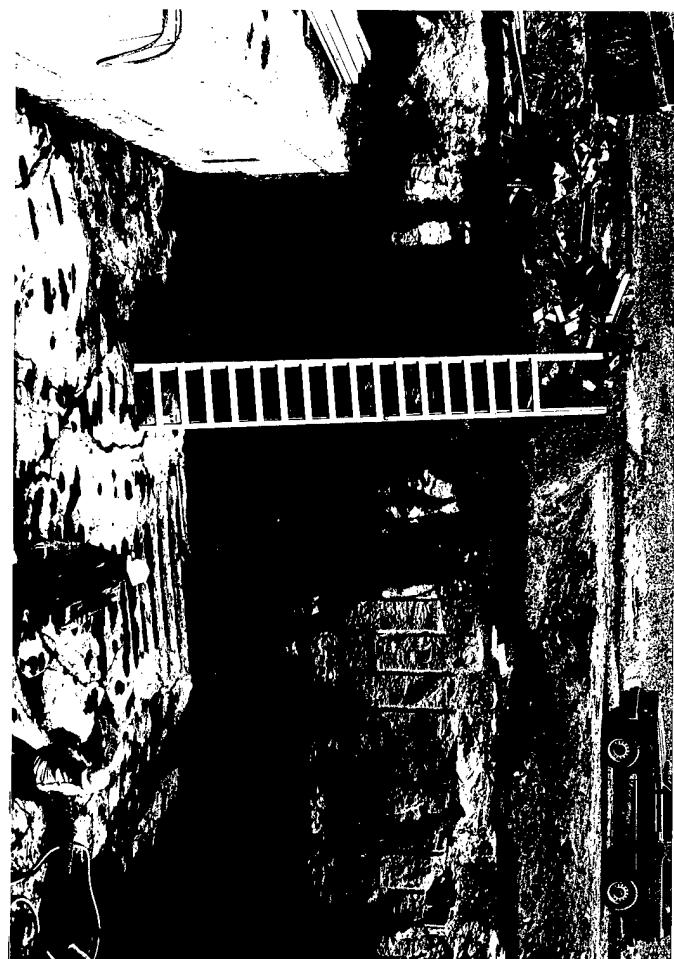


(87) R-79 East Wall Northern half
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(95) R-87 Invert view of Southeast corner



(97) R-89 Invert view of Southeast corner



(98) R-90 View of West wall Northern half





(99) R-91 Invert view of Northwest corner
(100) R-93 Invert view of Northwest corner



(99) R-91 Invert view of Northwest corner
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(100) R-92 Invert view of Southeast corner
(102) R-94 View of East wall Northern half





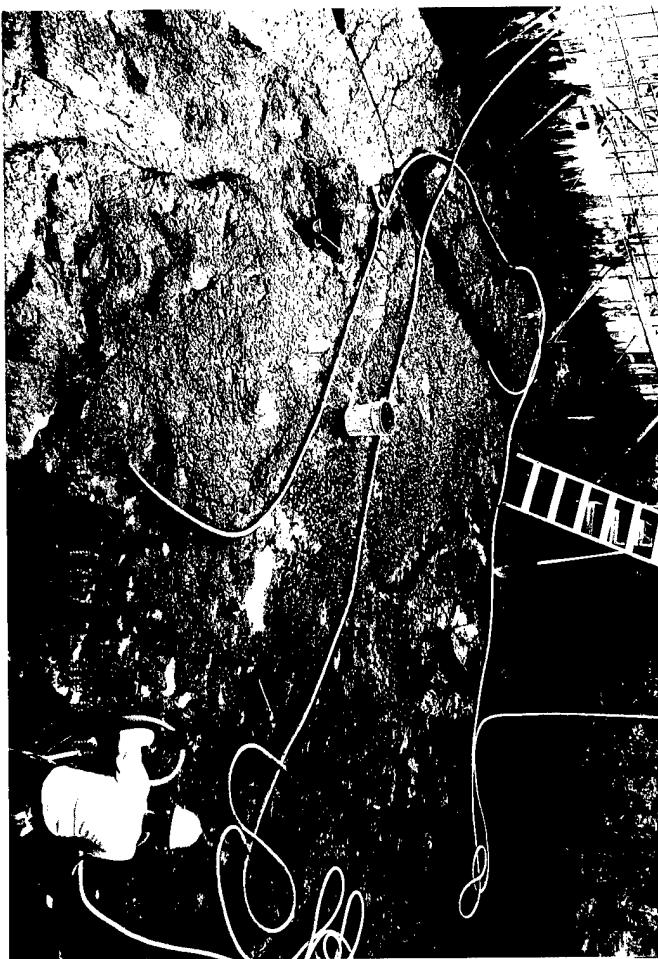
(103) R-95 Invert view of Northwest corner



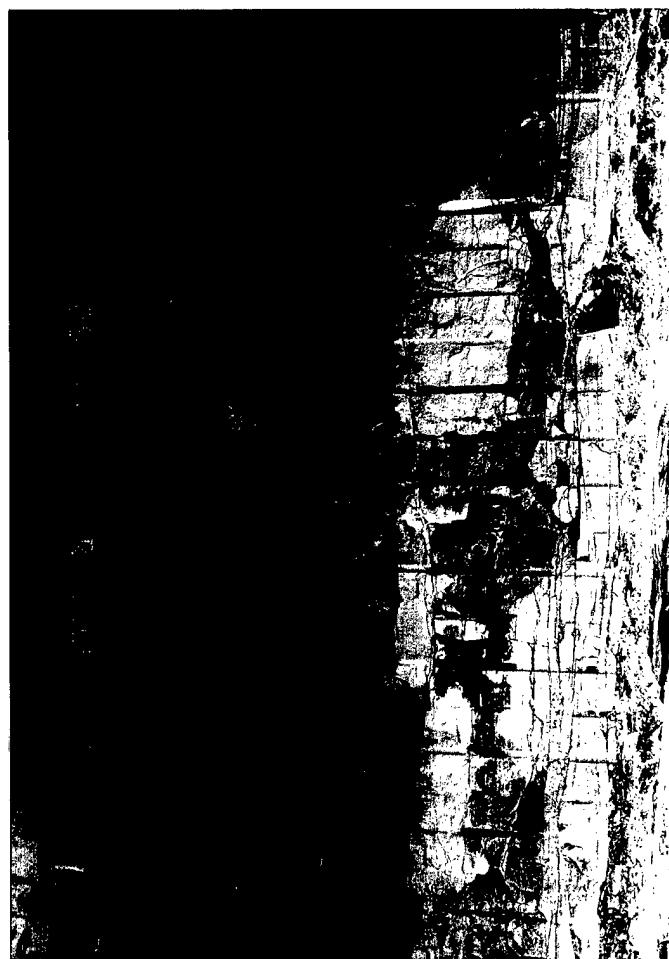
(104) November 3 1988 Aerial view of Project site from Northwest



(105) April 5 1989 Aerial view of Project site from Northeast



(106) M-1 View of Southern Half West Wall



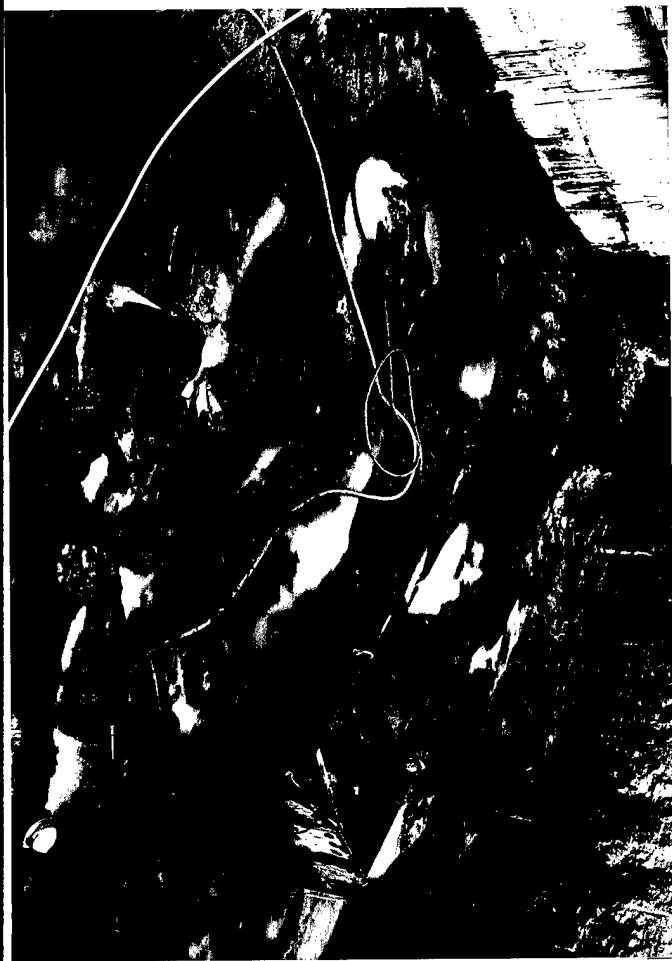
(108) M-3 Invert view of Northeast corner



(107) M-2 View of Southern half West Wall



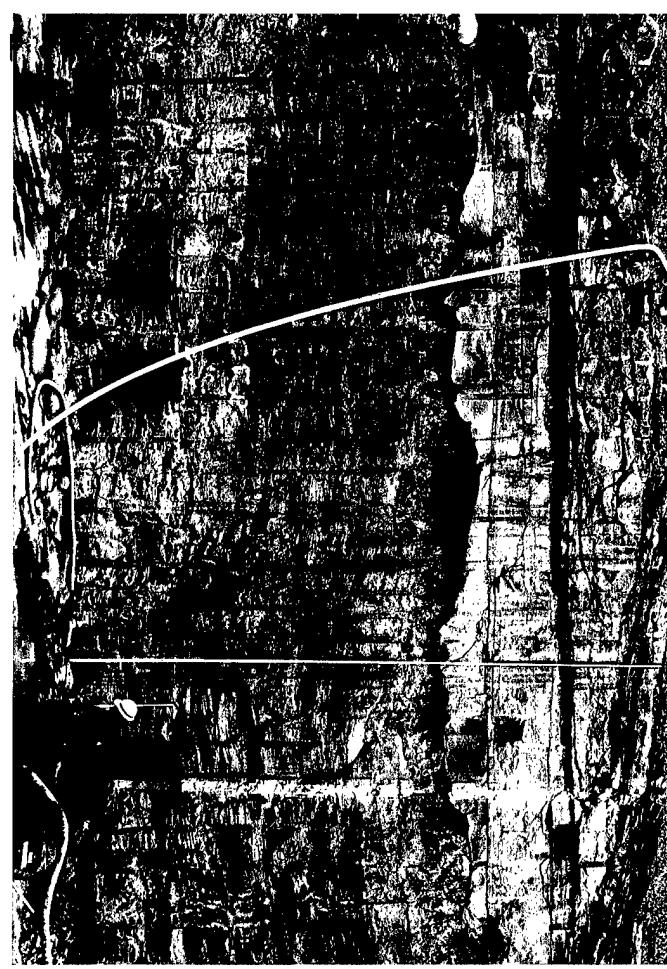
(109) M-4 Invert view of Southwest corner

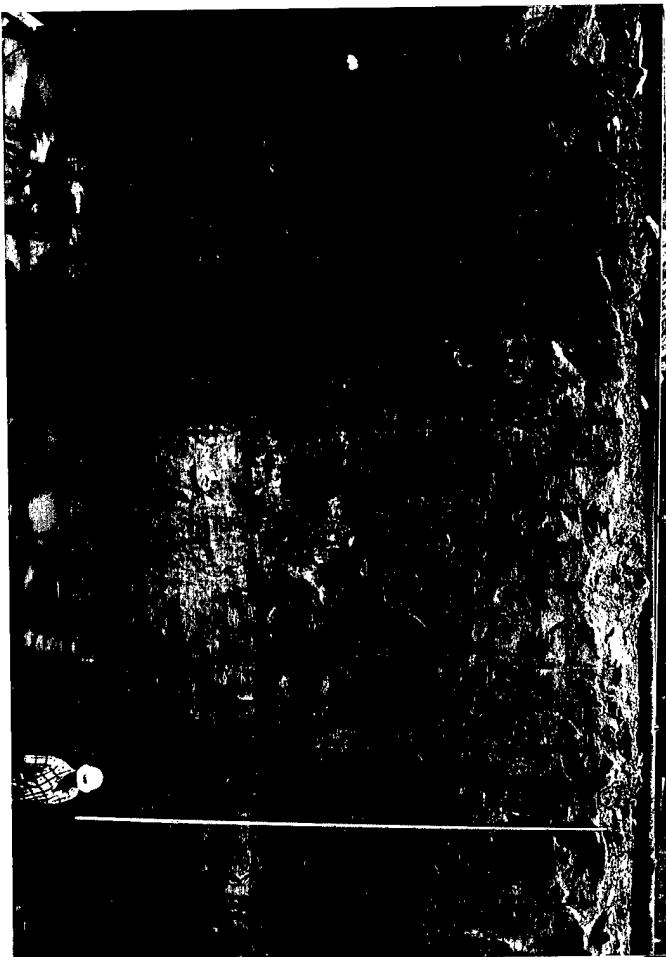


(110) M-5 Invert view of Northeast corner
(112) M-7 Invert view of Northeast corner



(111) M-6 View of East wall Southern half
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(114) M-9 Invert view of Northeast corner

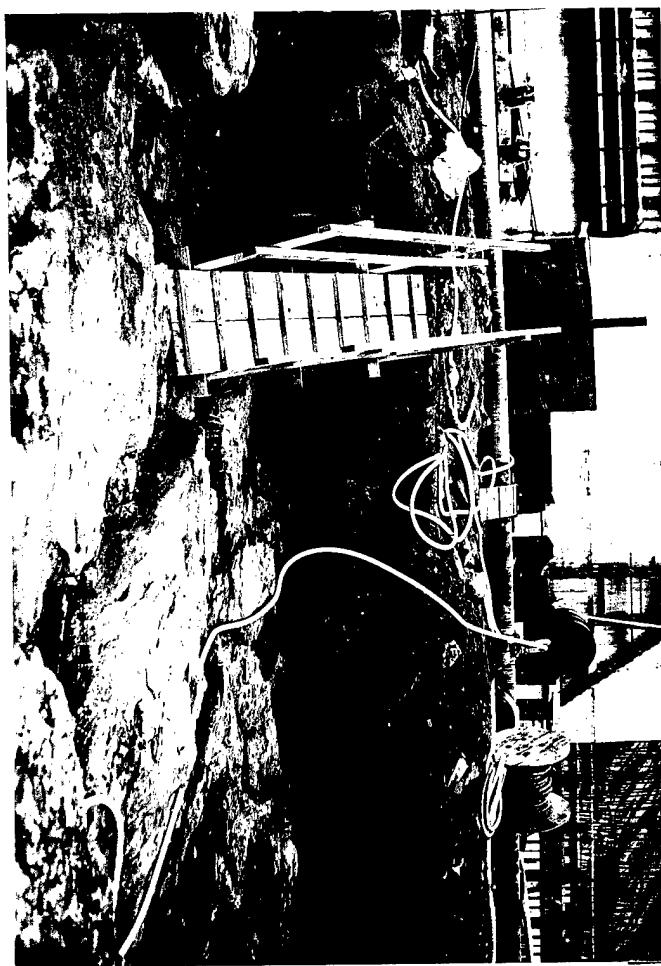
(116) M-11 View of East wall Southern half



(115) M-10 Invert view of Northwest corner

(117) M-12 Invert view of Northwest corner

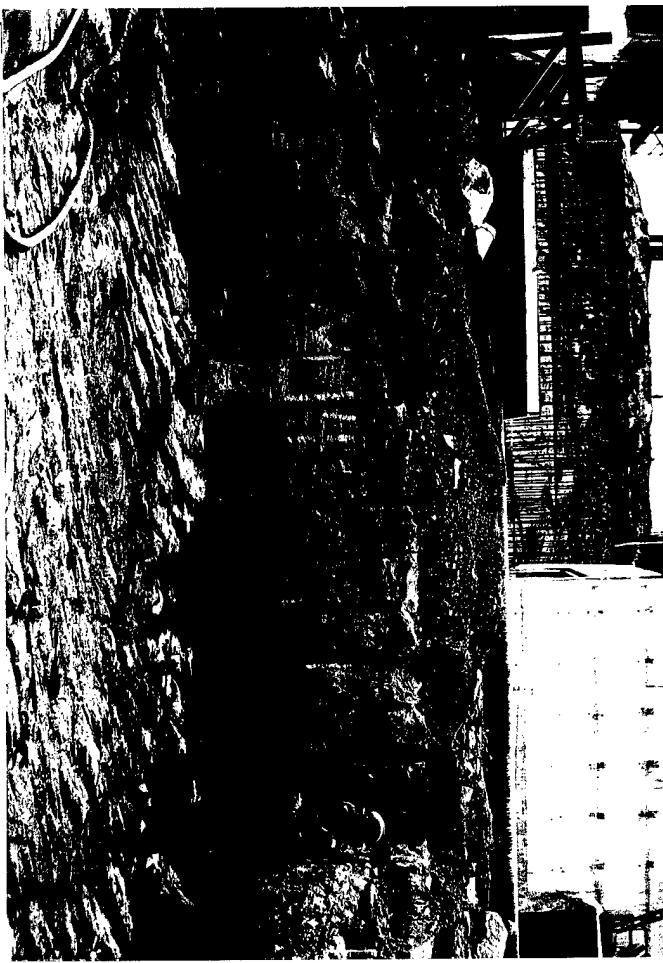
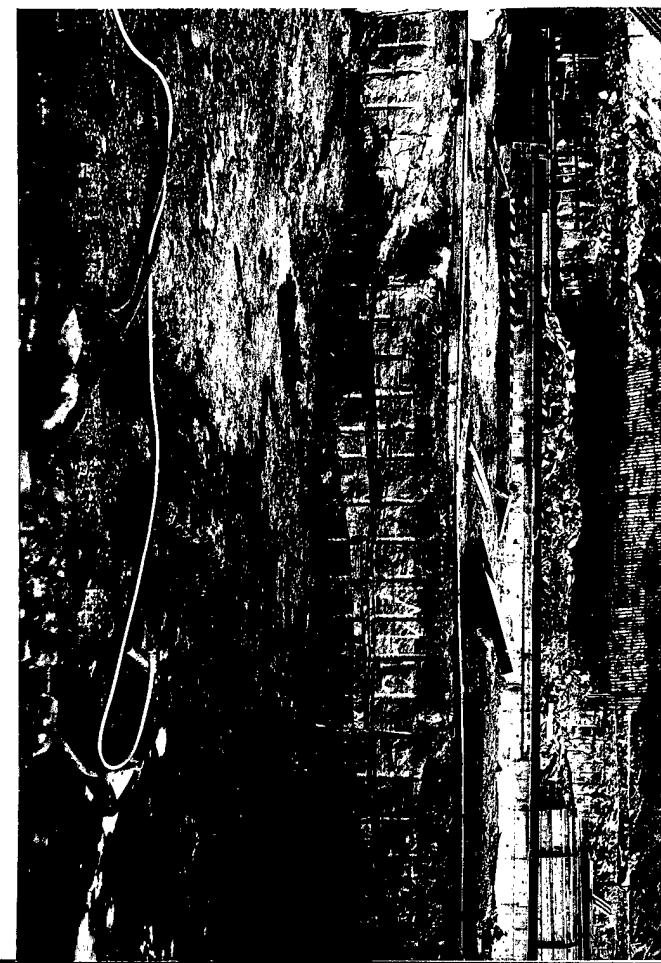




(118) M-13 Invert view of Northeast corner
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(119) M-14 View of East wall Northern half
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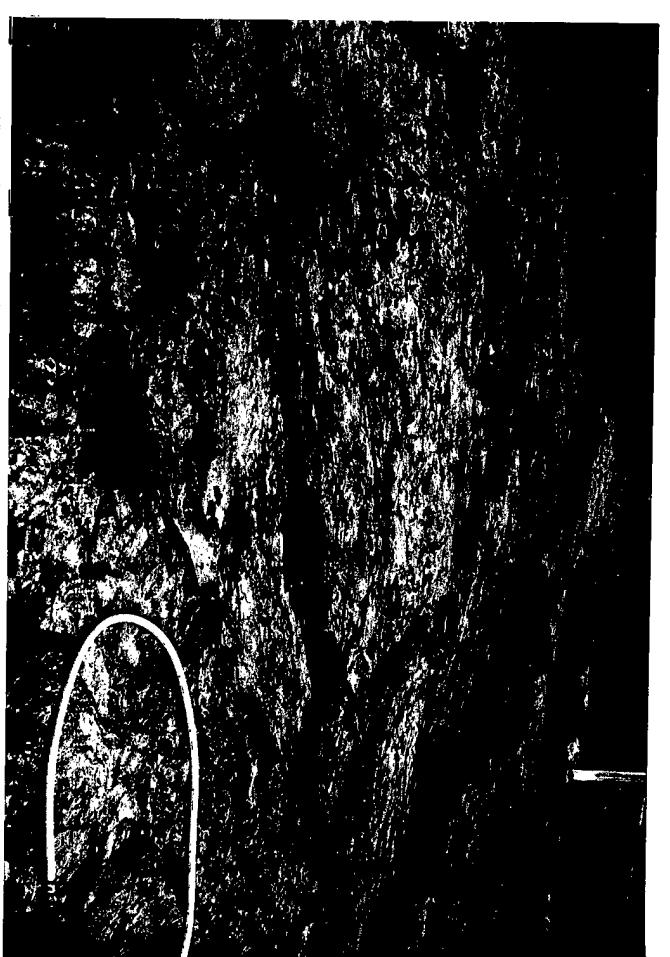




(122) M-17 View of East wall Northern half
(124) M-19 Invert view of Northwest corner

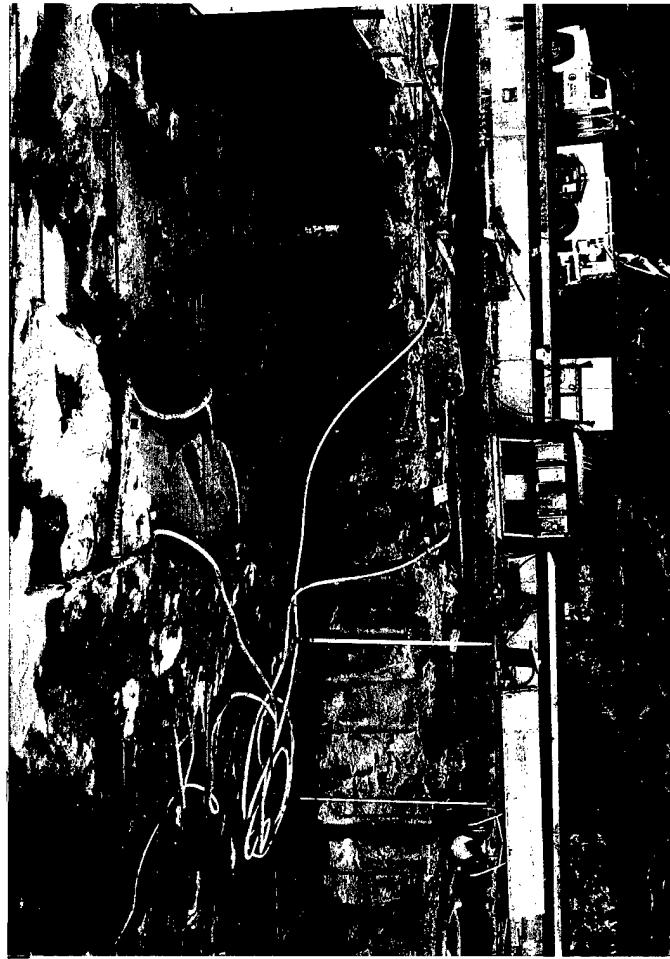


(123) M-18 Invert view of Northwest corner
(125) M-20 Invert view of Northeast corner

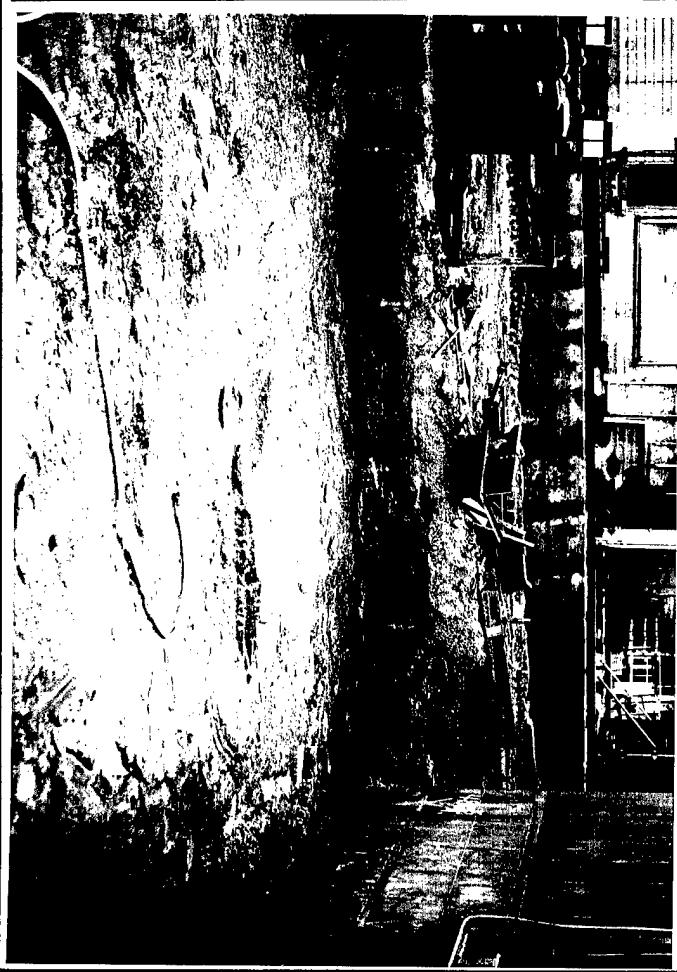




(126) M-21 View of West Wall Southern half



(128) M-23 Invert view of Northern half



(127) M-22 View of West wall Northern half



(129) M-24 Invert view of Northeast half





(134) M-29 Invert view of Northeast corner



(136) M-31 Invert view of Southeast corner



(135) M-30 Invert view Southeast corner



(137) M-32 Invert view of Northwest corner



(138) M-33 Invert view of Southwest corner
(140) M-35 Invert view of Northwest corner



(139) M-34 View of East wall Southern corner
(141) M-36 Invert view of Southeast corner





(142) M-37 Invert view of Southeast corner



(144) M-39 Invert view of Southeast corner



(143) M-38 View of West wall Northern half



(145) M-40 Invert view of Northwest corner



(147) M-42 Invert view of Southeast corner



(146) M-41 Invert view of Northeast corner



(148) M-43 Invert view of Northeast corner



(149) October 7 1989 Aerial view of Project site from Northwest



(150) February 1 1990 Aerial view of work site from Northwest

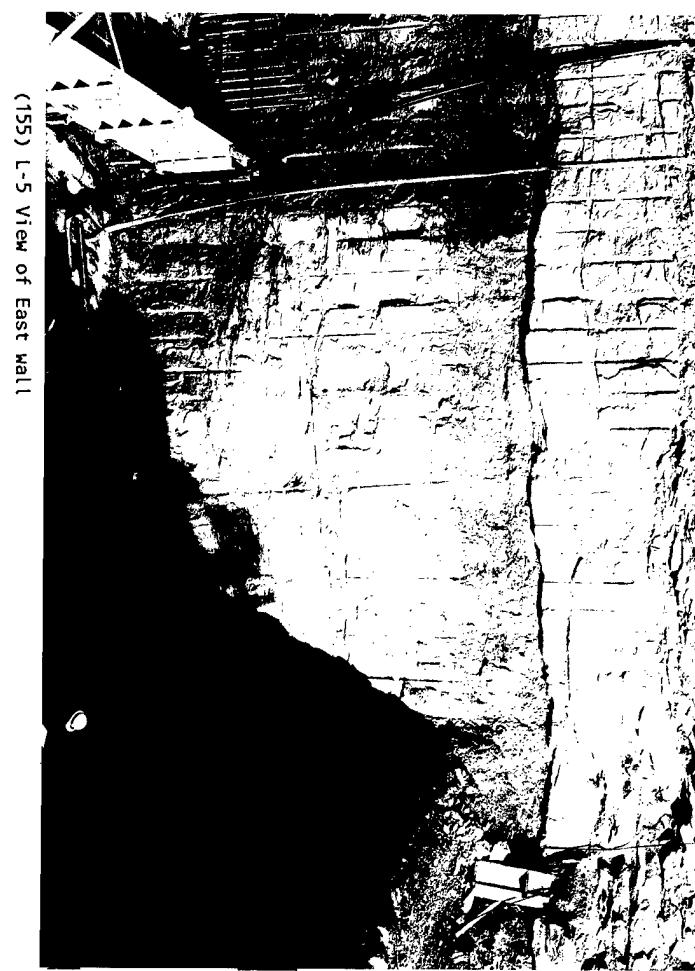


(151) L-1 Diagonal view of Southeast corner
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(161) L-11 View of East wall Southern half



(160) L-10 View of East wall Southern half
(162) L-12 Invert view of Northeast corner





(163) L-13 View of West wall



(165) L-15 Invert view of Southwest corner



(164) L-14 Invert view of Northwest corner



(166) L-16 Invert view of Southeast corner

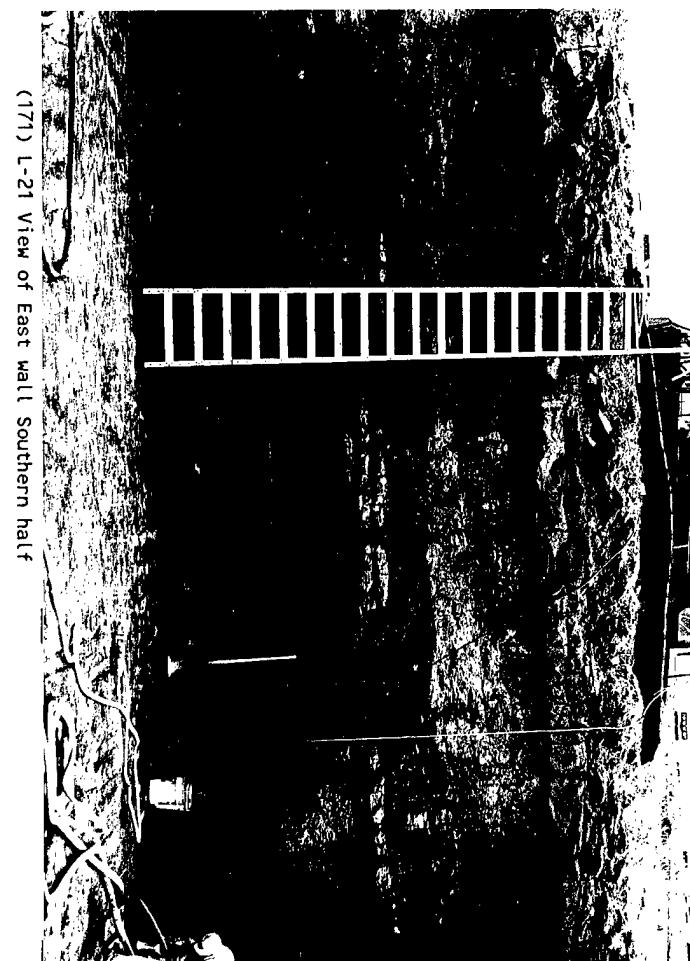


(167) L-17 View of West wall Southern half
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(171) L-21 View of East wall Southern half

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(172) L-22 Invert Diagonal view East to West

(174) L-24 Invert view of Northwest corner

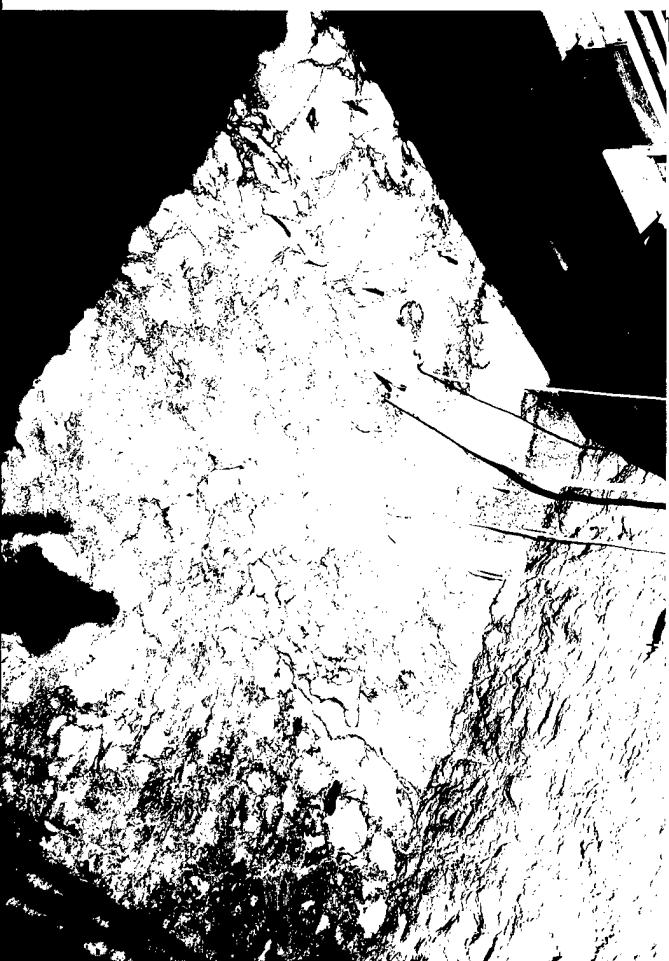




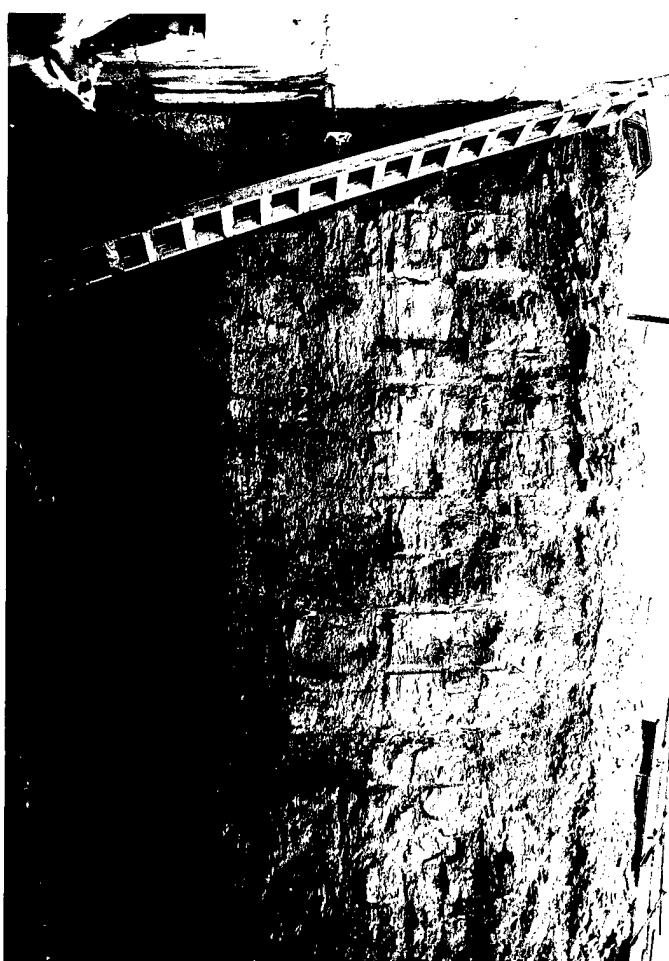
(175) L-25 View of West wall Southern half



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(178) L-28 Invert view of Southwest corner



(179) L-29 Invert view of Northeast corner



(180) June 1 1990 Aerial view of Project site from Northwest



(181) December 1 1990 Aerial view of work site from Southwest



(182) DSMBS-2 Invert view of Northern half



(184) USMBS-9 Invert view looking west



(183) DSAHS-4 View of Northern wall



(185) USABS-12 Invert view from top of Land Wall



(186) DSMSS-2 Invert view of Northern corner



(188) USMGS-9 Invert view looking East



(187) DSMGS-4 Invert view of Northwest corner



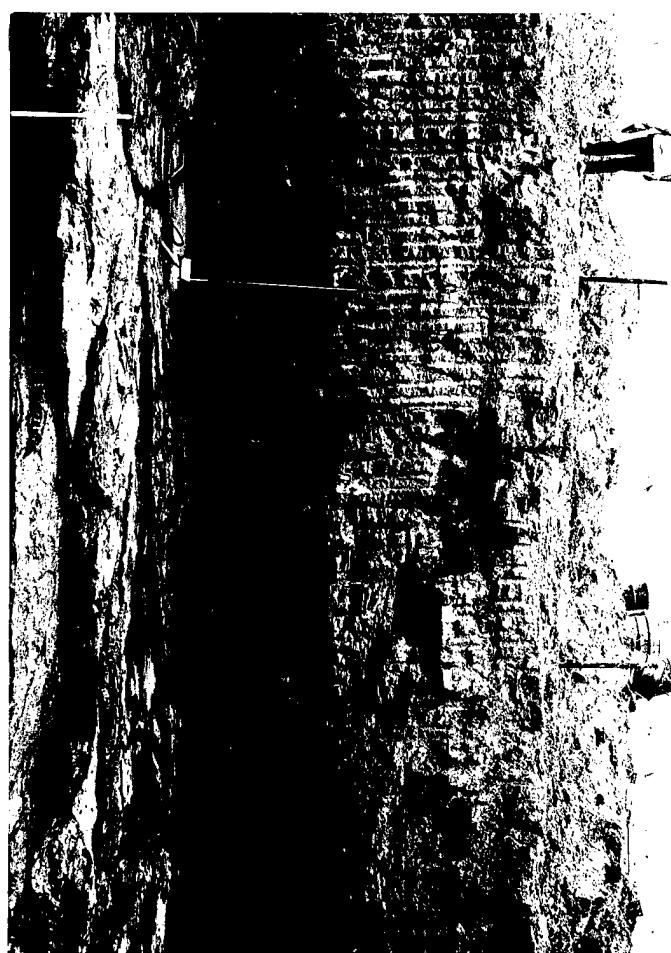
(189) USMGS-10 Invert view of Southwest corner



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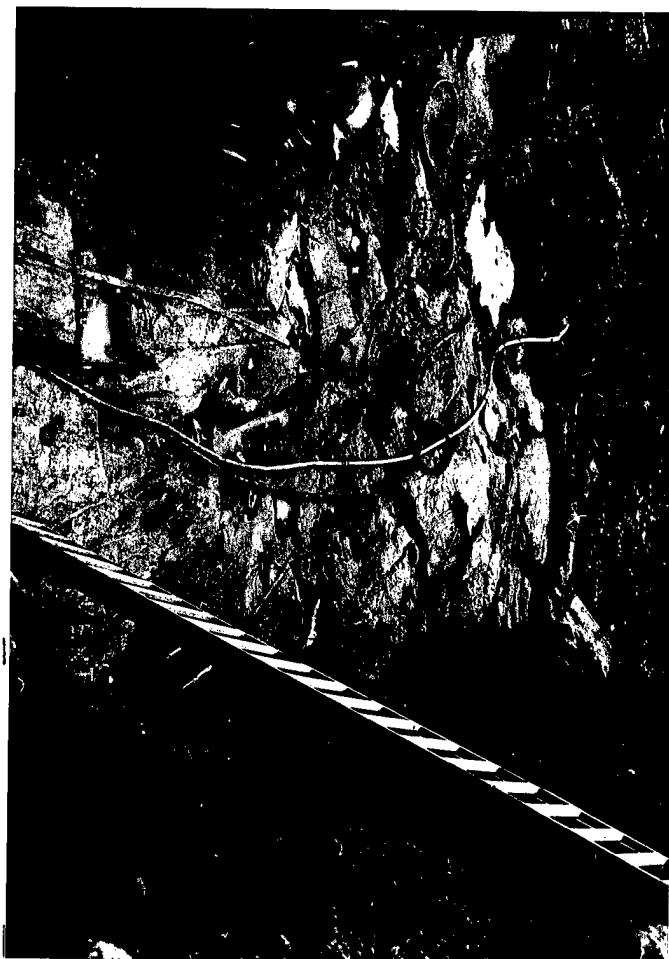


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(198) LC-57 Invert view looking West

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(199) RI-1 Invert view looking East

(201) Outlet Structure General view looking Southeast

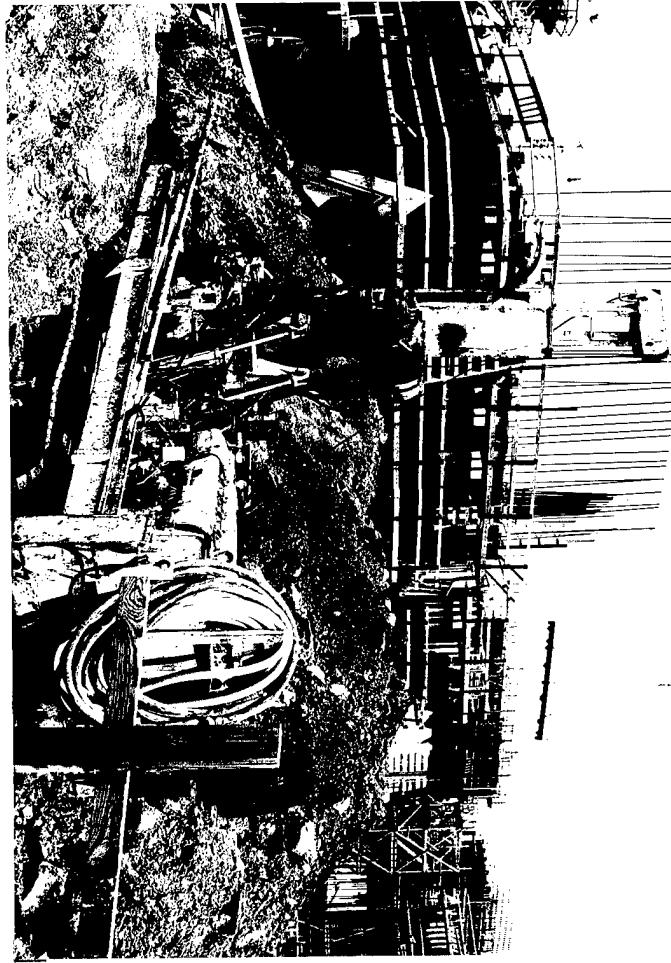




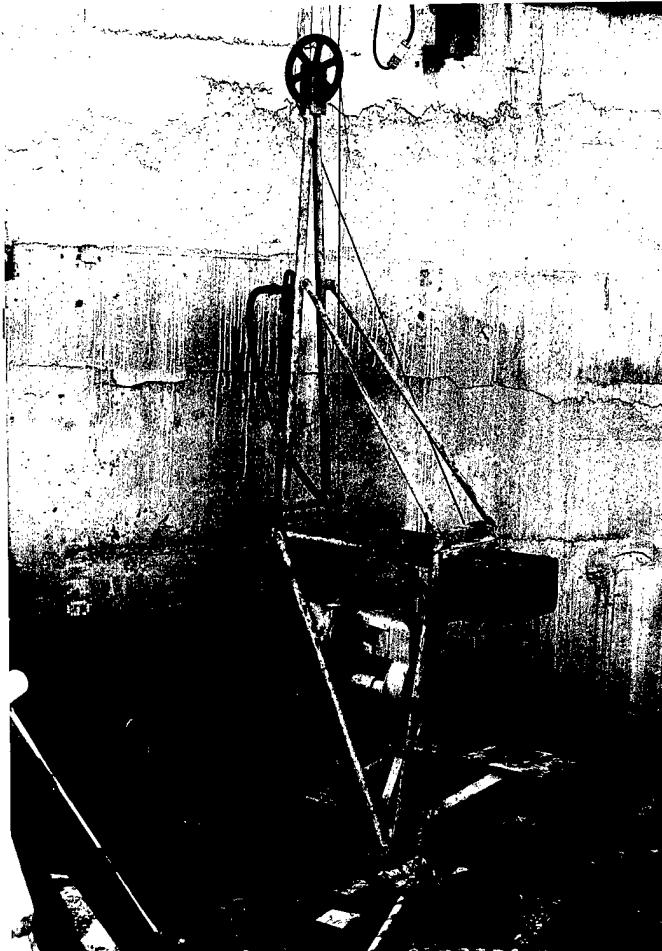
(202) January 1 1991 Aerial view of work site from Southeast

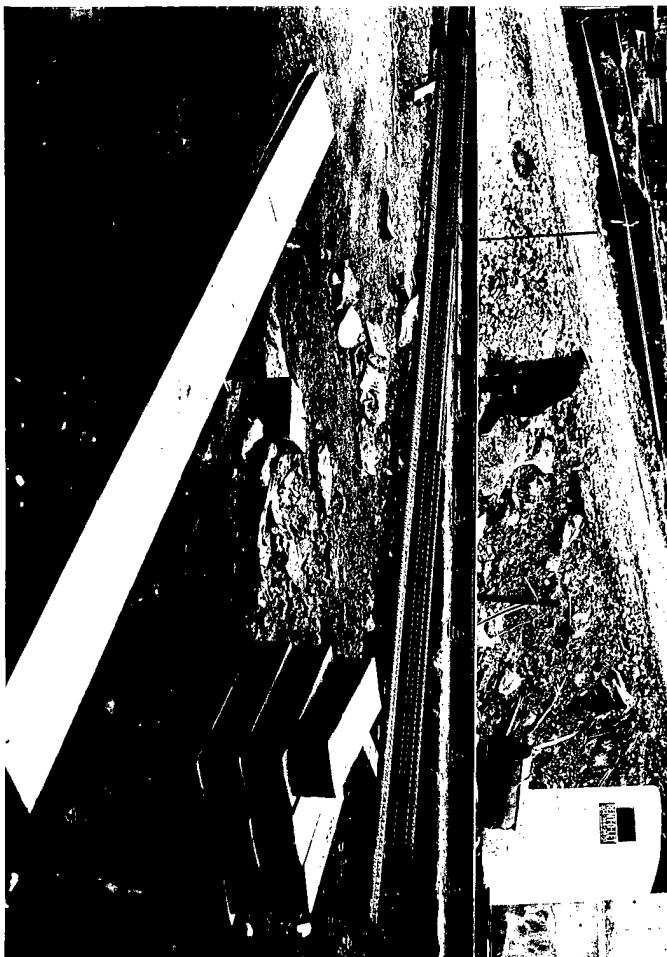


(203) Grouting Equipment, Semico Drill
(205) Grouting Equipment, Grout Mixer



(204) Grouting Equipment, Long Year Drill
(206) Grouting Equipment, Header



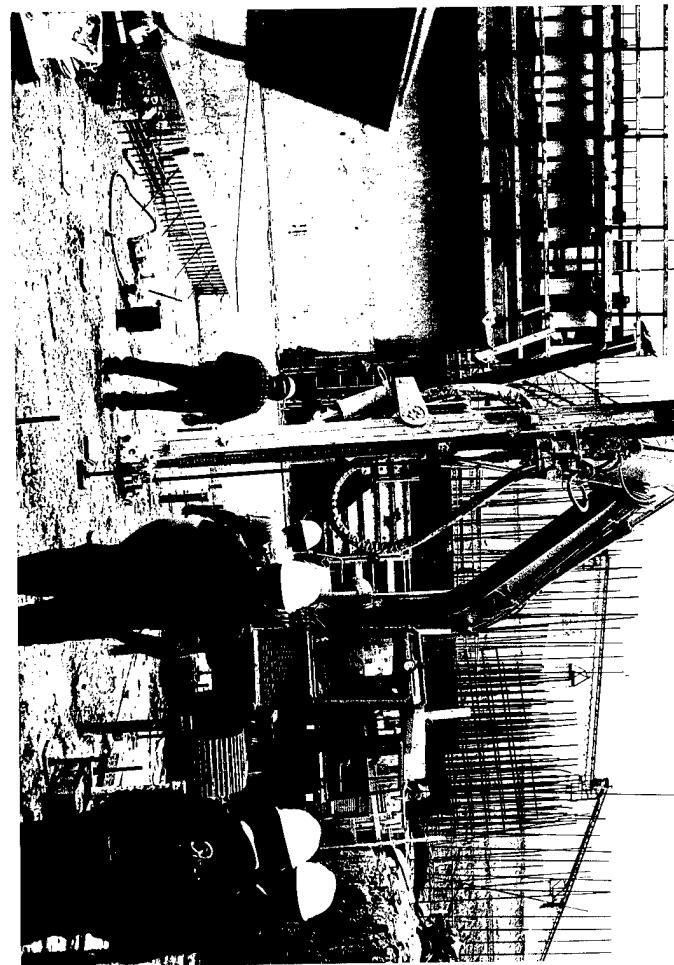


(207) Fasloc Resin used to set Rock Anchors
(209) Rods used Rock Anchors



(208) Inserting Fasloc Resin
(210) Inserting Rods into Hole





(211) Using Air Track to rotate Rock Anchors



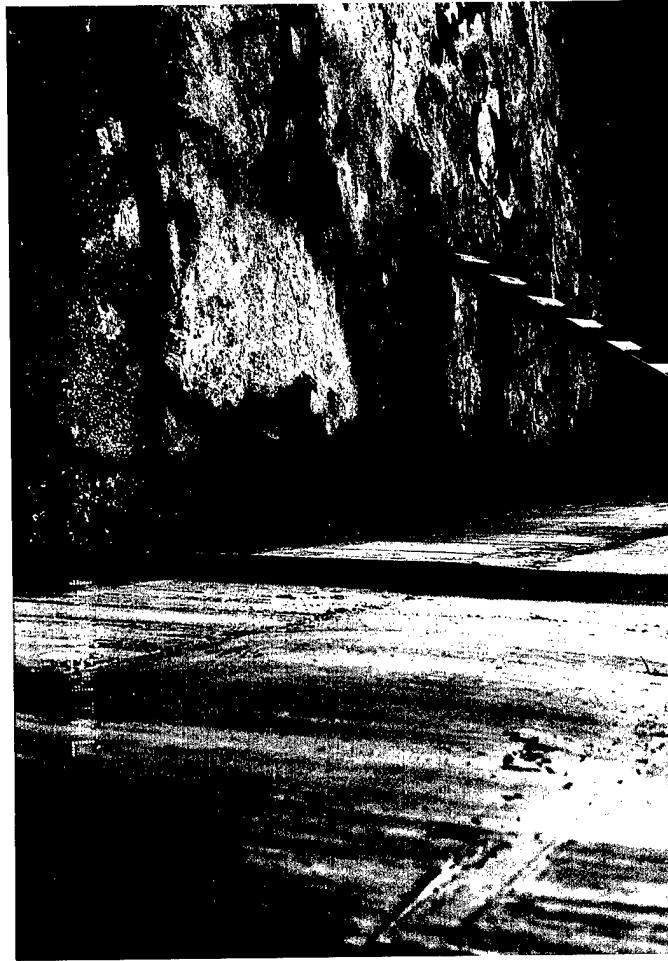
(212) Equipment to Tension Anchor Rods



(213) April 1 1991 Aerial view of work site from Northwest



(214) R-38 Invert view looking East after repair



(216) R-51 Invert view looking East



(215) R-46 Invert view looking West



(217) R-82 Invert view looking North



(218) R-82 Invert view looking Northwest
(220) M-22 Invert view looking West



(219) R-82 Invert view looking Southeast after repair
(221) M-28 Invert view looking southeast



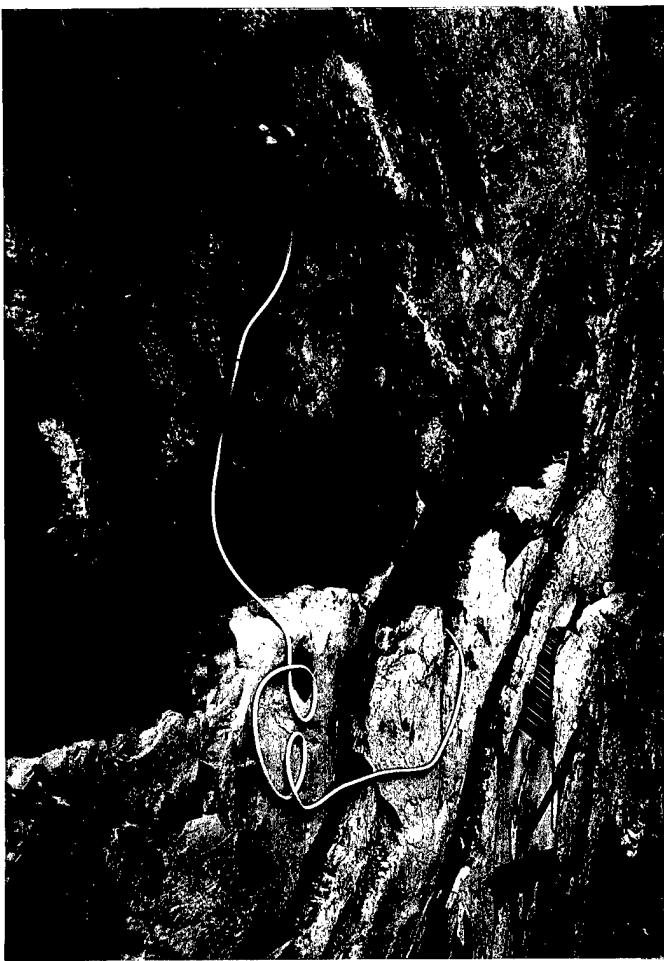


(222) M-30 Invert view looking North
(224) M-31 Invert view



(223) M-30 Invert view at monolith joint
(225) M-37 Invert view Of Slickenside





(228) L-13 Invert view looking Southwest

(227) L-11 Invert view looking Southwest after repair
(229) L-13 Invert view looking Southeast after repair





(230) L-14 Invert view looking East

(232) L-23 Invert view looking Northeast



(231) L-14 Invert view looking East after repair

(233) USABS-10 Invert view looking North





(234) USAMGS-12 Downstream shows slip zone as well as invert

(236) USAEGS-4 Invert view looking North



(235) USMEGS-1 Invert view looking Southeast

(237) LC-33 Invert view looking southeast





(238) LC-48/49 Invert view looking South



(239) LC-52/53 Invert view looking West



(241) MC-20 Invert view of Northwest corner after repair





(242) MC-22 Invert view looking East

(244) Outlet Structure Invert view looking East



(243) MC-22 Invert view looking East after repair

(245) Outlet Structure invert view looking East after repair



(246) Baffle Area Invert view looking Southwest



(247) L-13 Neat grout in a open joint



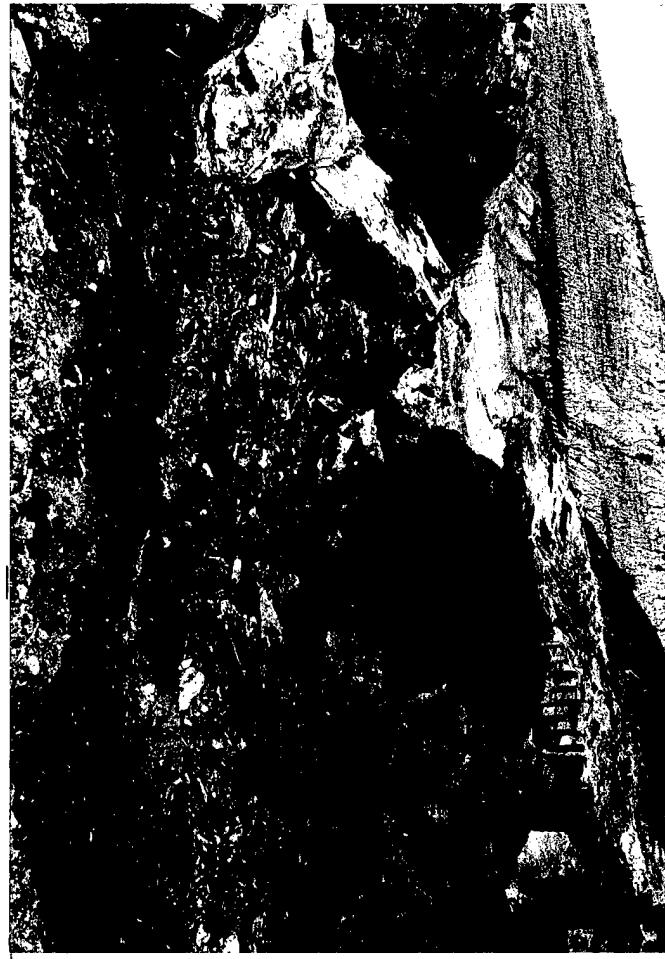
(248) L-13 Neat grout in a open joint



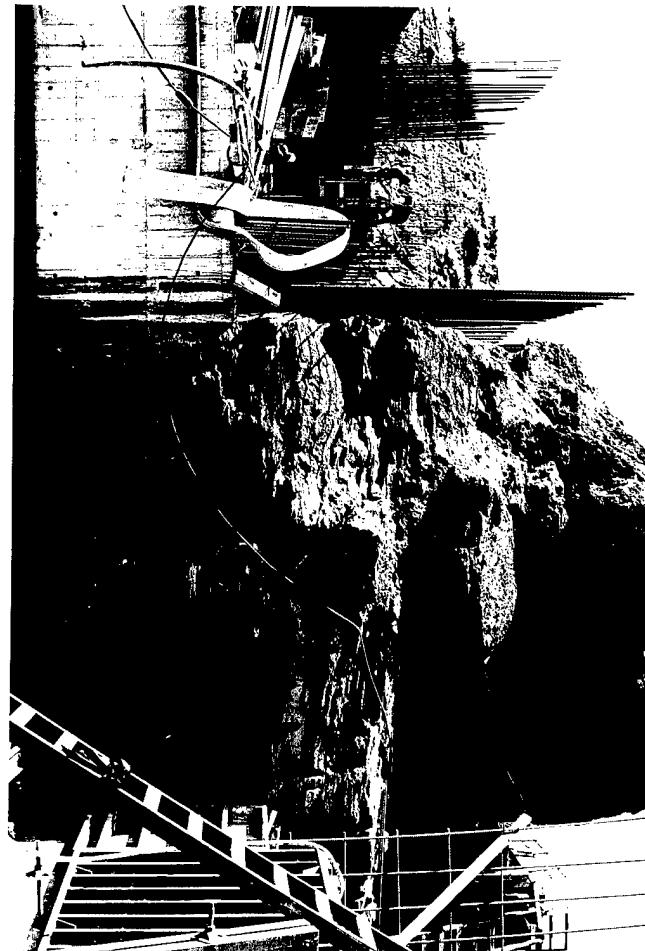
(249) November 1 1991 Aerial view of work site from the Northeast



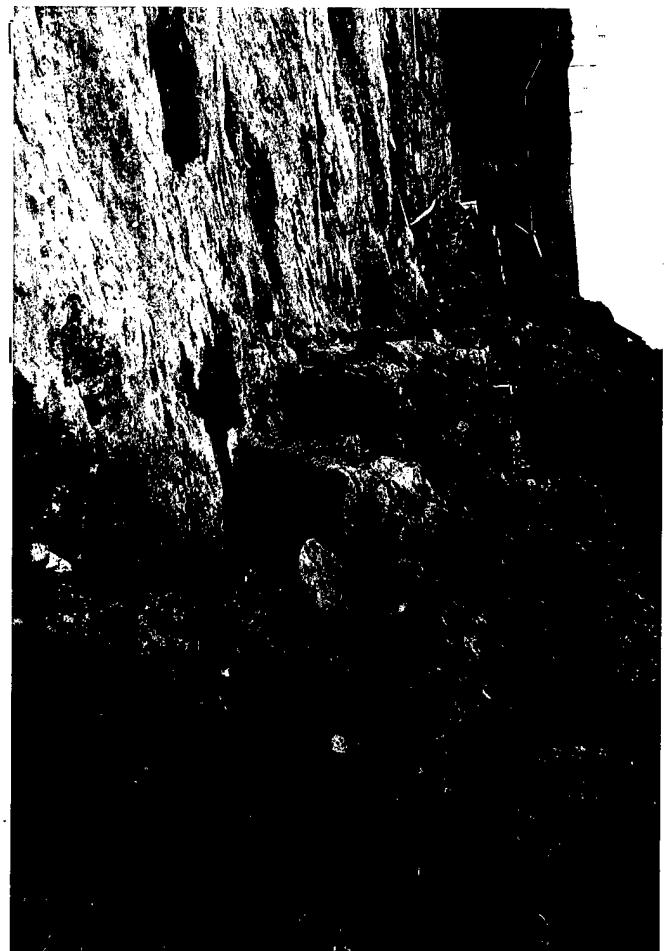
(250) R-29/NC-14 View of corner. looking Southwest



(252) R-47 View of slip in West wall



(251) R-37 View along East wall looking South



(253) M-5 View of West wall Northern half

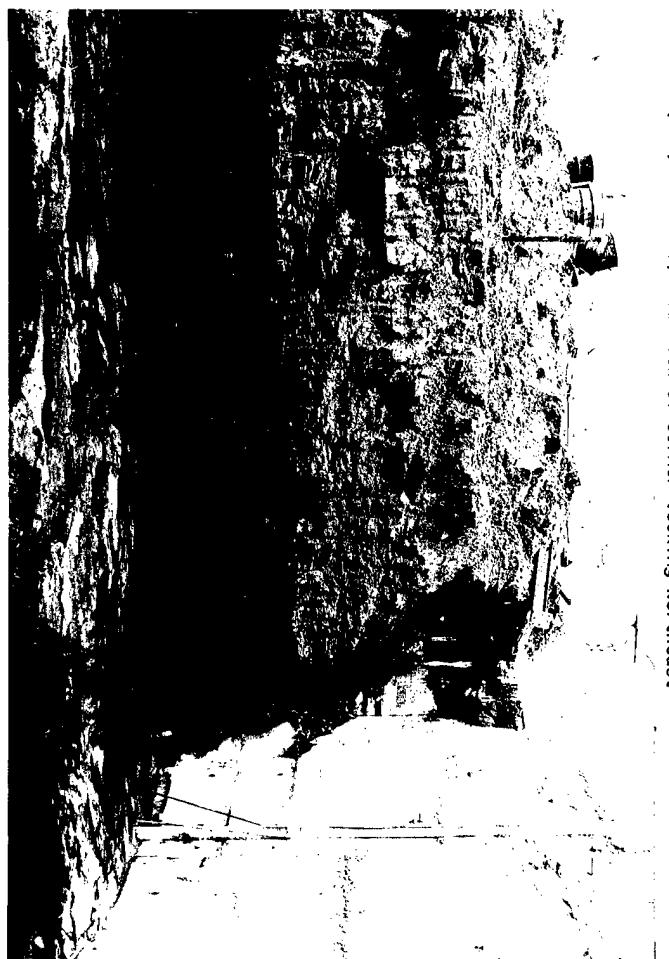


(254) M-12/13 View of East Wall looking Northeast
(256) MC-15 View of Southern Wall looking Southwest



(255) MC-15 View of North Wall looking Northwest
(257) LC-18 View of West Wall looking Northwest



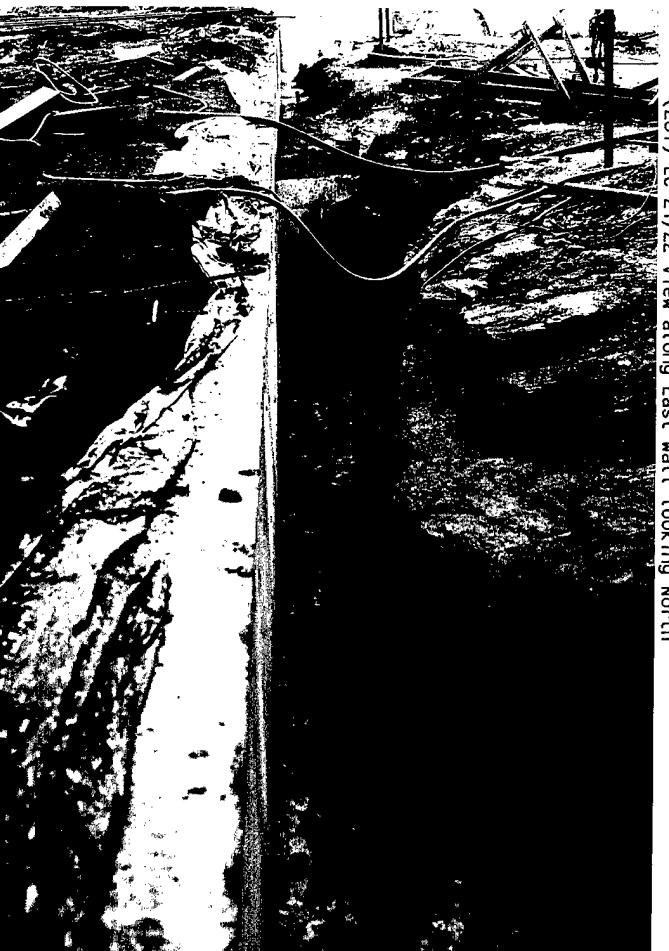


(258) DSMBS-1/R-30 View of corner looking South



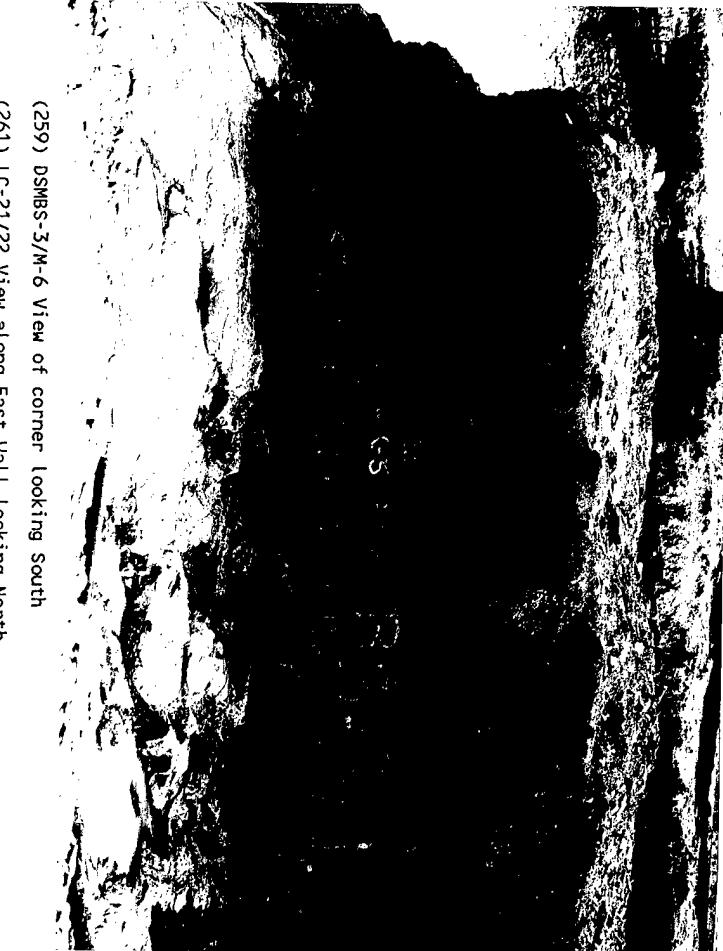
(258) DSMBS-1/R-30 View of corner looking South

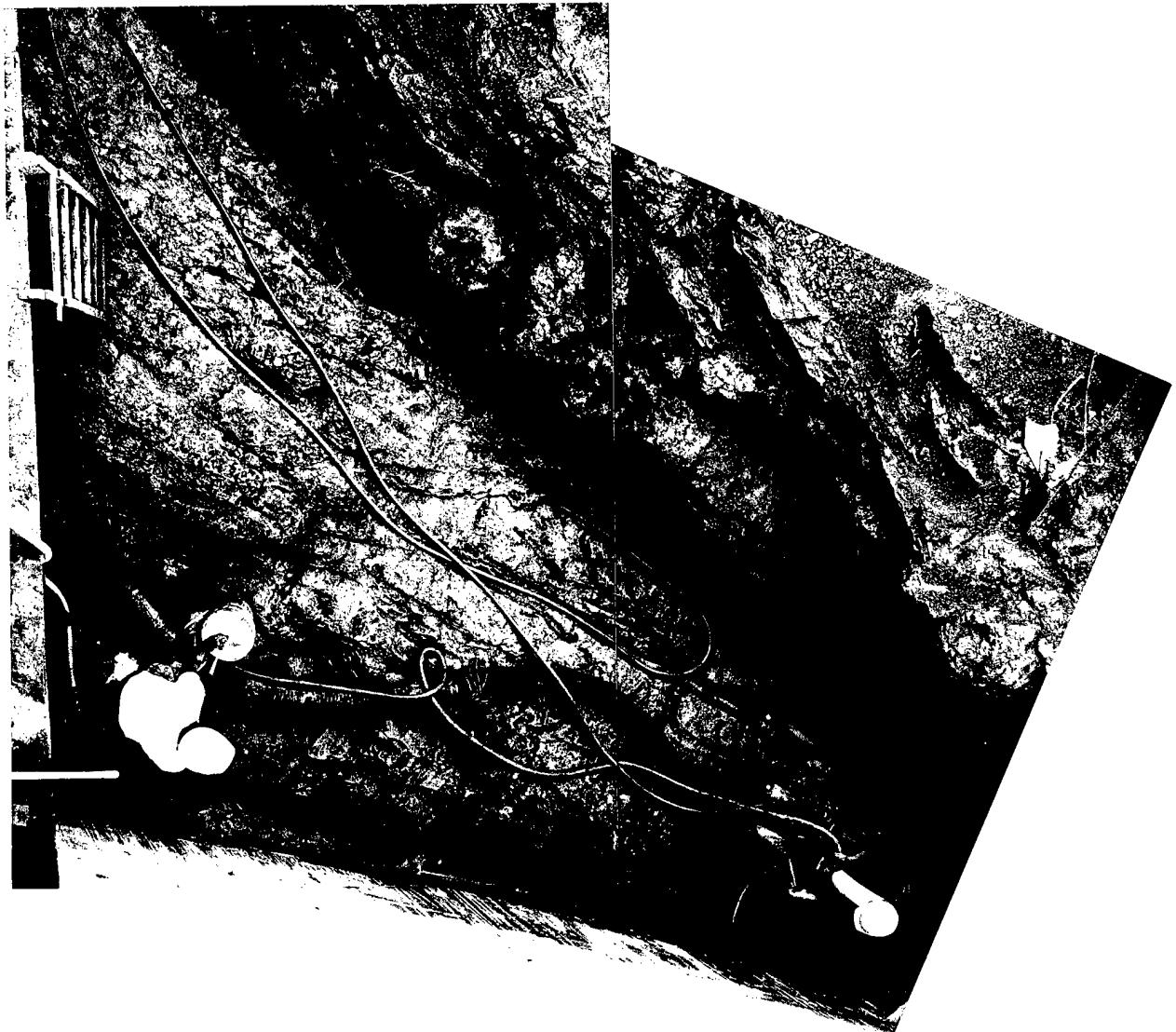
(260) USMEGS-3/M-38 View of corner looking Northeast



(259) DSMBS-3/M-6 View of corner looking South

(261) LC-21/22 View along East Wall looking North





(262) USAMGS-10 view of slip looking Southwest



(263) December 1 1992
Final aerial view of Gallipolis Locks and Dam, taken from Northwest